ZAKHAROV, A.V.

PHASE I BOOK EXPLOITATION SOV/3922

Usyukin, Ivan Petrovich, Ivan Grigor'yevich Aver'yanov, Vladimir Semenovich Gorokhov, Anatoliy Maksimovich Gorshkov, Aleksandr Vasil'yevich Zakharov, and Nikolay Kasparovich Yelukhin

Mashiny i apparaty ustanovok razdeleniya vozdukha metodom glubokogo okhlazhdeniya; atlas konstruktsiy (Machinery and Apparatus for Air Separation by Low-Temperature Refrigeration; Atlas of Designs) Moscow, Mashgiz, 1959. 189 p. Errata slip inserted. 5,000 copies printed.

Ed.: I.P. Usyukin, Doctor of Technical Sciences, Professor; Reviewers: I.K. Kondryakov, Candidate of Technical Sciences, and M.P. Malkov, Doctor of Technical Sciences, Professor; Eds.: P.M. Ionov, Engineer, B.N. Bol'shakov, and N.S. Kasperovich; Managing Ed. for Catalogs and Albums: K.A. Ponomareva, Engineer; Tech. Ed.: A.Ya. Tikhanov.

PURPOSE: This atlas is intended as a design manual for students of schools of higher technical education and can be used by planning and design offices and scientific research institutes in the study of problems of low-temperature refrigeration and the use of oxygen as a means of raising industrial output.

Card 1/12

Machinery and Apparatus (Cont.) SOV/3922

COVERAGE: The atlas contains basic designs of Soviet and non-Soviet plants for separating air by the low-temperature refrigeration method. Also included are types of expansion engines and turbines, pumps for liquid oxygen, basic types of heat exchangers and rectification equipment used in oxygen and nitrogen plants, containers for storage and transportation of liquid gases, and auxiliary apparatus for drying and cleaning air. The operation of typical accessories under low-temperature conditions is shown. No personalities are mentioned. There are no references.

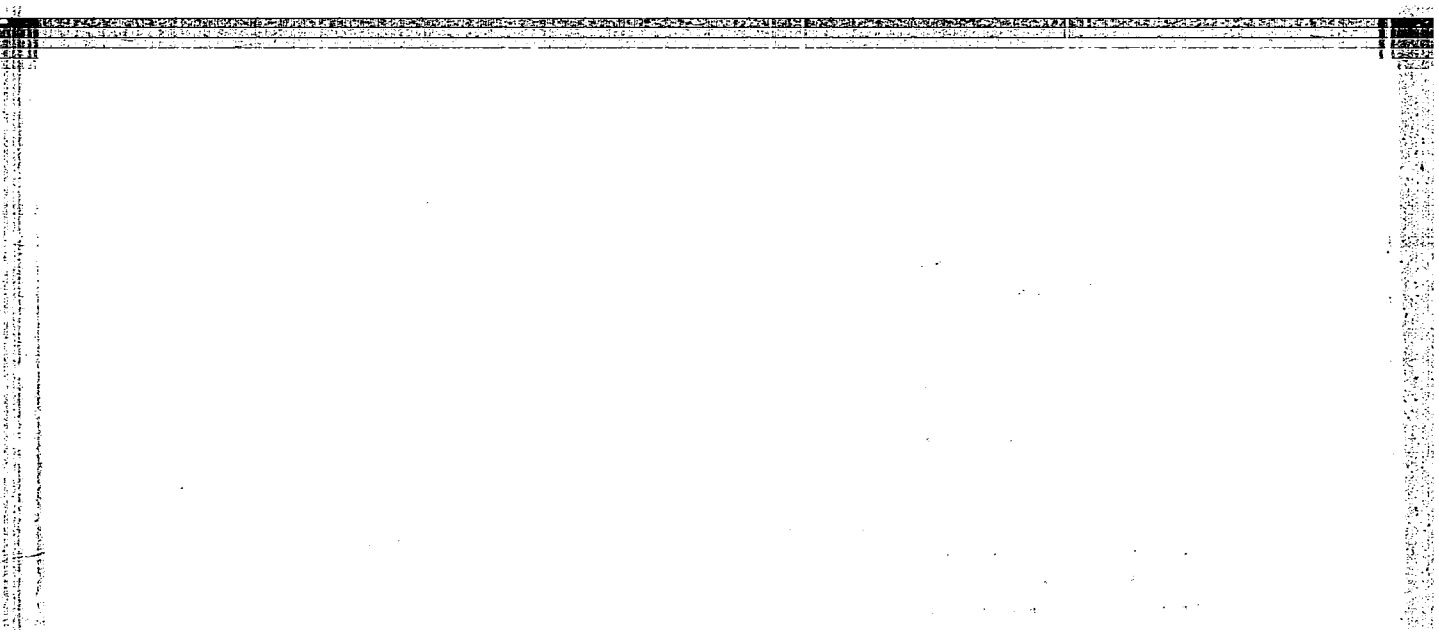
TABLE OF CONTENTS:

Card 2/12

ZAKHAROV, A.V.; KROTIKOV, V.D.; TROITSKIY, V.S.; TSEYTLIN, N.M.

Results of intensity measurements of the radio emission from discrete sources, the moon, and Jupiter at a wavelength of 70.16 cm. Izv. vys. ucheb. zav.; radiofiz. 7 no.3:553-555 '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete.



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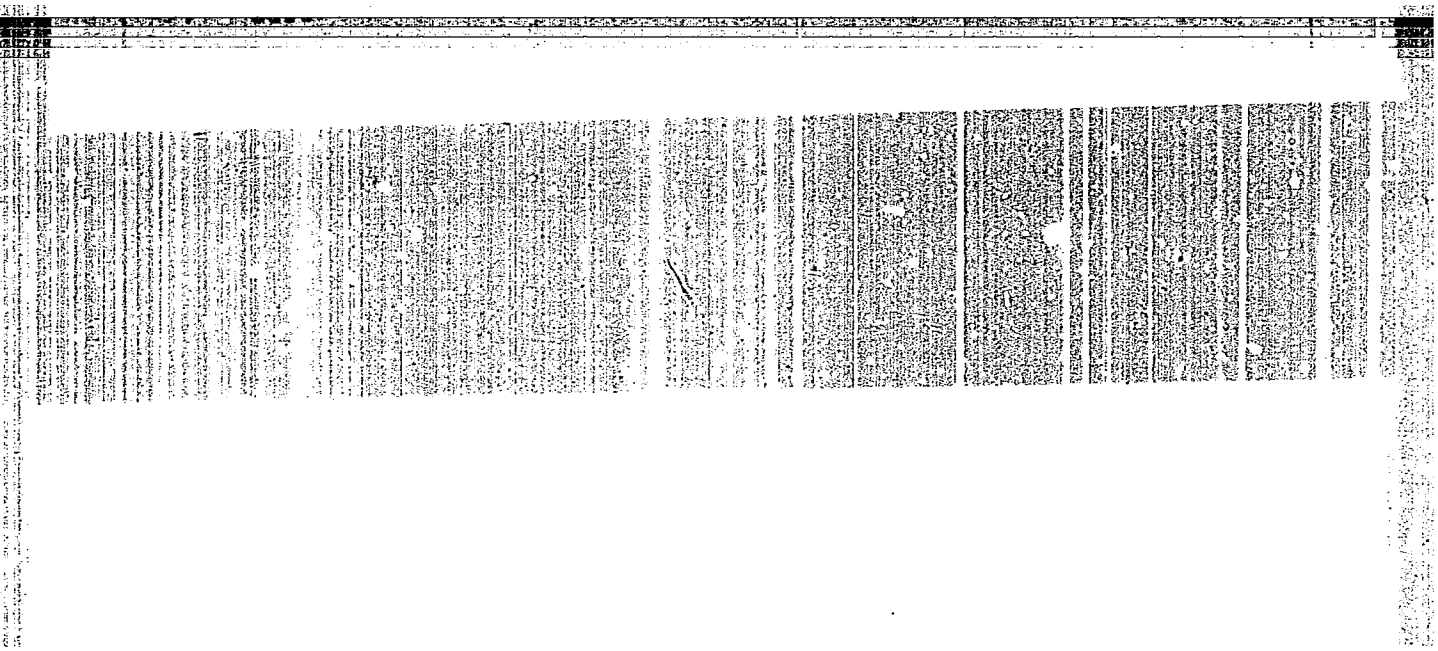

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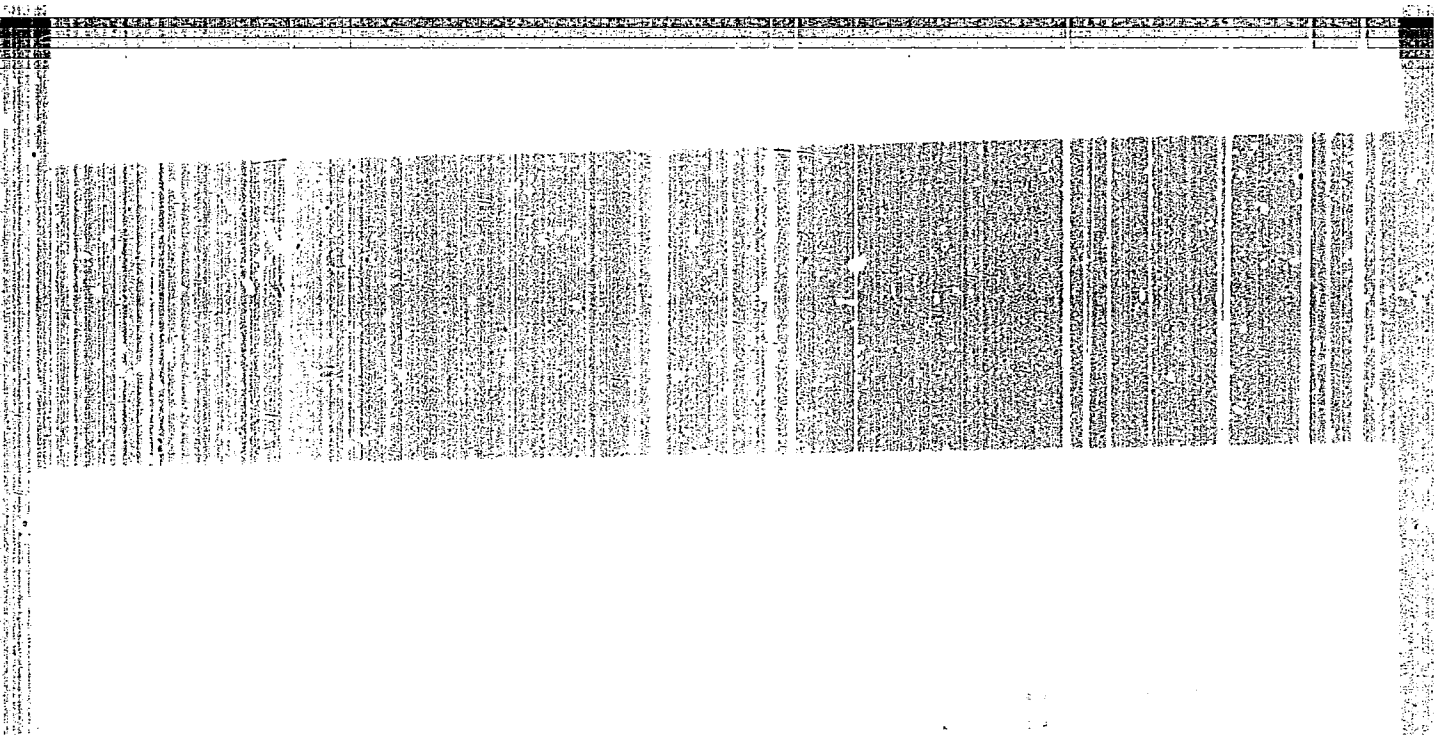

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ZAKHAROV, A.V. (Moskva)

Organization of public health in the people's communes of China. Sov.zdrav. 19 no.2:82-87 '60. (MIRA 13:5)

1. Iz Instituta organizatsii zdravookhraneniya i istorii meditsiny imeni N.A. Semashko (dir. Ye.D. Ashurkov).
(PUBLIC HEALTH)

ZAKHAROV, A. V.

307 Endogennyye Pozhary na Shakhtakh Kuzbassa. M., 1954. 101, 3 Chert. 22 SM. (M-vo Ugol'noy Prom-sti Ssar. Tekhn. Upr. Tsentr. In-t Tekhn. Informatsii. Vost. Nauch.-Issled. In-t Po Bezopasnosti Rabot V Gornoy Prom-sti Vost.). 2,000 EKZ. Bespl.- (54.54934) P.

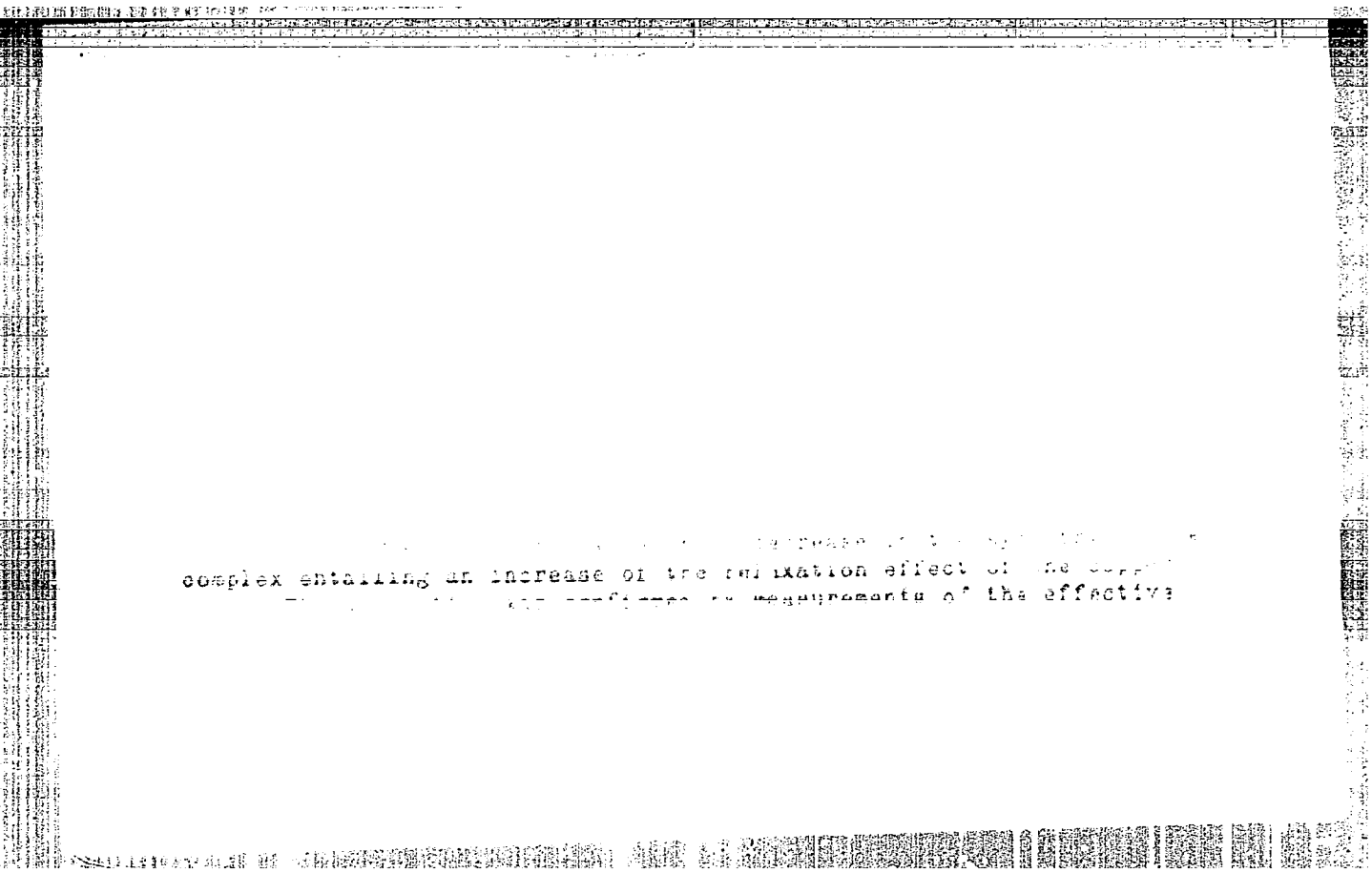
622.333.622.33 t 622.33

ZAKHAROV, A.V.

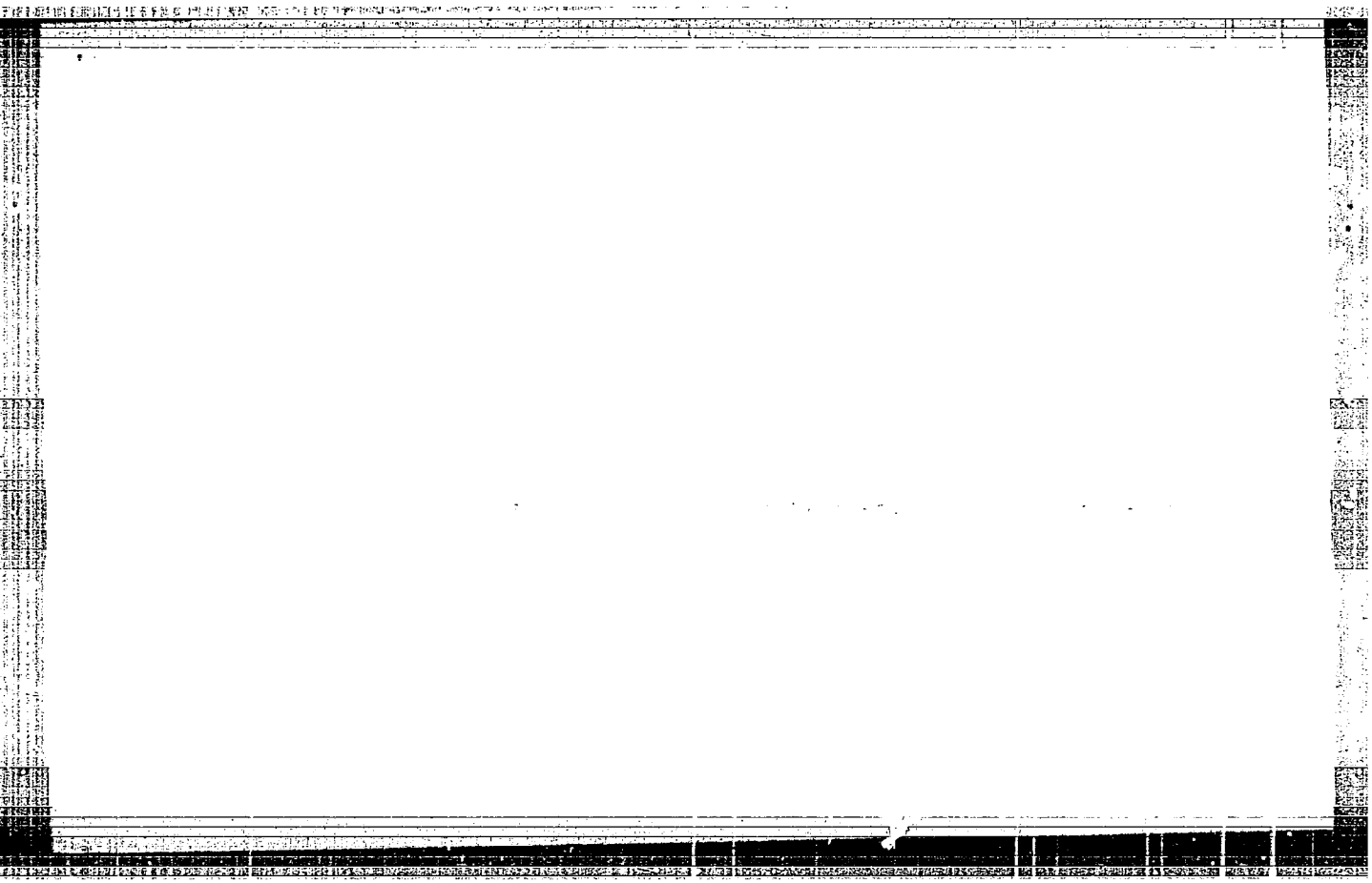
GULYY, M.F.; MAZURENKO, M.P.; GONCHAREVSKAYA, T.S.; DAGTYAR', R.G.; GEMMA, O.I.; SLYUSARENKO, I.T.; ZAKHAROV, A.V.

Preparation from the lytic substaces of Bacillus mesentericus and its action on ascitic cancer in mice. Vrach. delo no.12:1347 D '57. (MIRA 11:2)

1. Laboratoriya bioterapii raka (zav. - kand.med.nauk M.P.Mazurenko) Kiyevskogo instituta epidemiologii i mikrobiologii i otdel tkanevykh belkov (zav. - chlen-korrespondent AN USSR, prof. M.F.Gulyy) Instituta biokhimii AN USSR.
(CANCER) (BACTERIA, AEROBIC)



complex entailing an increase of the [illegible] effect of the [illegible]



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001963520007-8"

POPEL', A.A.; DAUTOV, R.A.; ZAKHAROV, A.V.

Effect of the symmetry of the paramagnetic complex on proton relaxation time. Dokl.AN SSSR 149 no.3:637-638 Mr '63. (MIRA 16:4)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-Lenina. Predstavleno akademikom B.A.Arbuzovym.
(Nuclear magnetic resonance and relaxation)
(Complex compounds)

L 4971-66 FSD/EWT(1)/EWA(h) GW/WS-2 SOURCE CODE: UR/0120/65/000/005/0120/0123

ACC NR: AP...

AUTHOR: ... Zakharov, A. V.

TITLE: Modulating radiometer with parametri converter input

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1965, 120-123

TOPIC TAGS: radiometer, radio telescope

ABSTRACT: A low-noise radiometer intended for the study of weak radio emission from the Moon and ... is described. The block diagram of the radiometer is shown in the figure. The antenna switch ... diodes whose capacitances ...

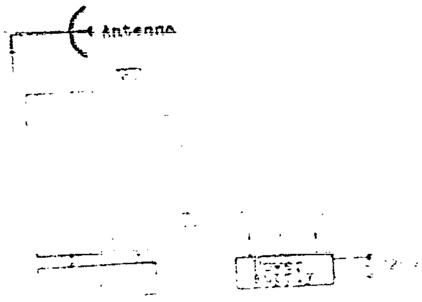
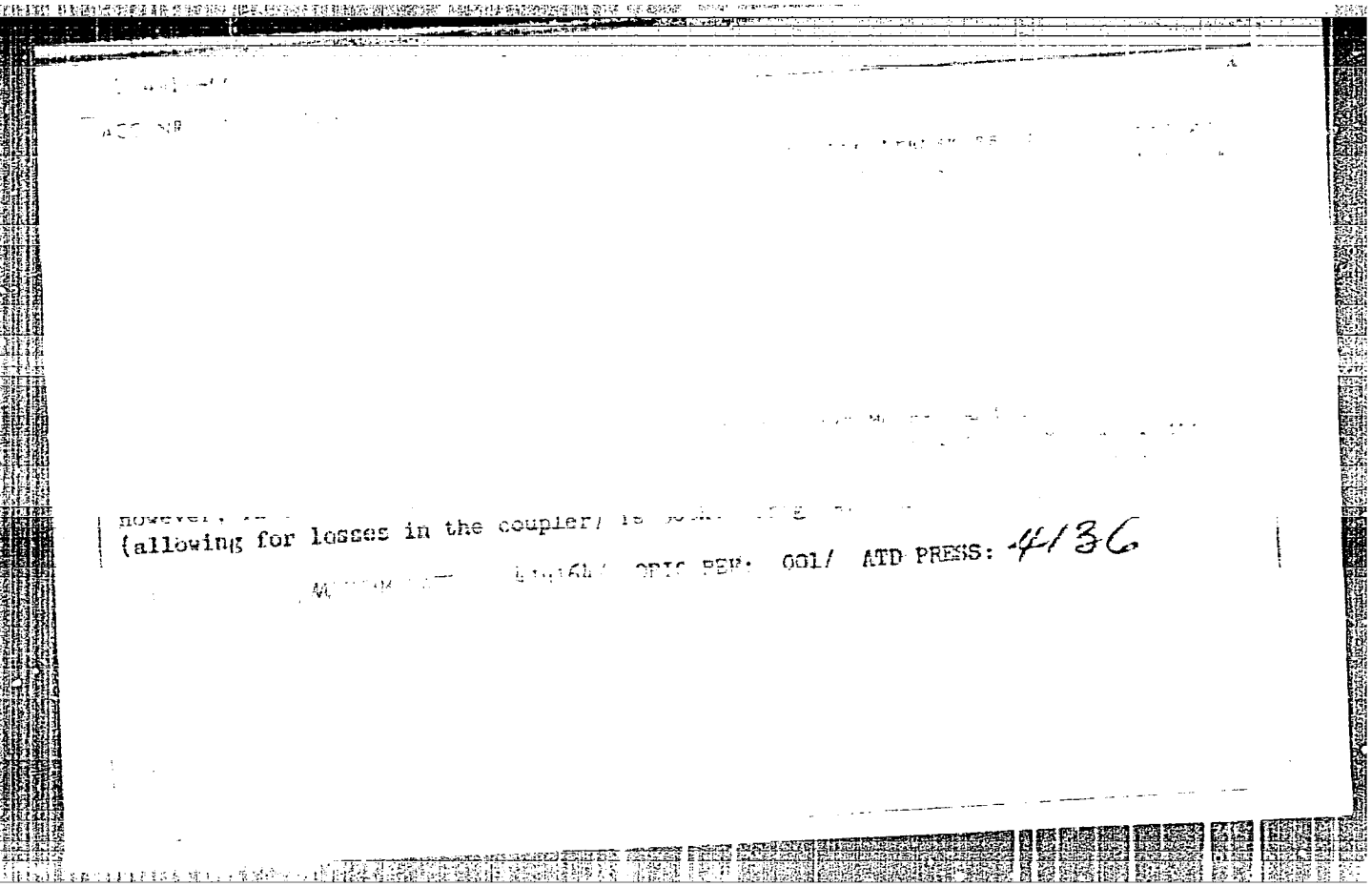


Fig. 1. Modulation radiometer

1 - Directional coupler, 2 - 3-way switch; ... generator, 4 - antenna switch; ... amplifier ...

Card 1/2 UDC: 537.8...



however, ...
(allowing for losses in the coupler) is ...

... ORIG REV: 001/ ATD PRESS: 4136

1. Z'KHARVS, '. YA.
2. USSR (600)
4. Cranes, Derricks, Etc.
7. Efficient assembly of the TsKB tower cranes, Mul. stroi. tekh. 10 No. 6, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

KOROTKOV, G.I.; KUCHERENKO, V.G.; ZAKHAROV, A.Ye.; OVSYANNIKOVA, T.M.; PANKOV, M.I.

Removal of riser heads. Metallurg 8 no.7:23 Jl '63. (MIRA 16:8)

1. Zhdanovskiy metallurgicheskiy zavod im. Il'icha.
(Steel ingots)

ZAKHAROV, A.Ye.

Steatorrhea following resection of the stomach with and without exclusion of the duodenum. Khirurgiia 35 no.12:68-70 D '59. (MIRA 13:6)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. Ye.I. Zakharov) lechebnogo fakul'teta Krymskogo meditsinskogo instituta.

(GASTRECTOMY complications)
(STEATORRHEA etiology)

ZAKHAROV, A.Ia., kand.med.nauk

Mirror screen for the demonstration of surgical operations. (MIRA 16:2)
Klin.khir. no.11:91 N '62.

1. Gospital'naya khirurgicheskaya klinika Krymskogo meditsinskogo instituta.

(SURGERY, OPERATIVE—STUDY AND TEACHING)

ZAKHAROV, A.Ye.; TITS, Yu.V.

Build-up welding of the feed mechanism carriage of a pilgrim mill. Avtom. svar. 16 no.1:82-83 Ja '63. (MIRA 16:2)

1. Zhdanovskiy metallurgicheskiy zavod imeni Il'icha.
(Rolling mills—Maintenance and repair)
(Feed mechanisms—Maintenance and repair)

ZAKHAROV, A.Ye., inzhener; YEGOROV, D.A., inzhener.

Constructing reinforced concrete cylindrical arch shells. Stroitel'stvo no.5:10-20 My '53. (MLRA 6:6)

(Arches) (Reinforced concrete construction)

GOLUBOV, M.M.; LEGEYDA, N.F.; ZAKHAROV, A.Ye.; FADEYEV, A.Yu.; FAN'KIN, N.I.; SAPRYGIN, Kh.K.; NOSOV, V.S.; VOL'TER, Ye.V.; SHUL'GA, Ye.A.; MIROSHNICHENKO, S.T.

Effect of the rate of plate cooling on the quality of the metal after rolling. Met. i gornorud. prom. no.1:33-36 Ja-F '65. (MIRA 18:3)

ZAKHAROV, A. Ye.

Cand Med Sci - (diss) "Small-intestine plastic operations in gastroectomy and resection of the stomach." Moscow, 1961. 16 pp; (First Moscow Order of Lenin Med Inst imeni I. M. Sechenov); 250 copies; price not given; (KL, 7-61 sup, 258)

YEGOROV, D. A.; ZAKHAROV, A. Ye.; Engs.

Arches

Pouring concrete into the arches of shells in mobile traveling formwork. Biul. stroi. tekh. 10, No. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

ZAKHAROV, A.Ye.; POLILOV, M.I.

Therapeutic value of bicillin-3 in the treatment of acute uncomplicated gonorrhea in males. Vest.derm.i ven. 35 no.4:66 Ap '61. (MIRA 14:5)

1. Iz Kurskogo oblastnogo kozhno-venerologicheskogo dispansera (glavnyy vrach M.I. Polilov).
(GONORRHEA) (PENICILLIN)

L 9643-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD

ACC NR: AP5027704 SOURCE CODE: UR/0129/65/000/011/0020/0021

AUTHOR: Zakharov, A. Ye.; Legeyda, N. Y.; Kosov, V. S.; Vol'ter, Ya. V.

ORG: none

TITLE: Heat treatment of low-carbon and low-alloy steel plate

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 20-21

TOPIC TAGS: metal heat treatment, tempering, cooling, ferritic steel, pearlite steel

ABSTRACT: The Ukrainian Scientific Research Institute of Metals in collaboration with the TsNIIChERMET and the Kommunar Metallurgical Plant developed a new industrial process of the heat treatment (quenching and tempering) of St. 3 steel plate: quenching from 890-910°C and water cooling in the press, followed by tempering at 500°C. At the Kommunar Plant the thermal hardening is carried out in continuous roller hearth furnaces. Plate 4-50 mm thick and up to 12 m long can be cooled in the press. The squeeze exerted by the press is 130 tons; the water-spray pressure is 2-3 atm. The microstructure of the plate is initially (after rolling) ferritic with a small amount of pearlite; following thermal hardening this microstructure is pearlitic-ferritic (the amount of pearlite increases). Studies of the mechanical properties of St. 3ps steel before and after this heat treatment revealed a marked increase in the impact strength of thermally hardened steel (3.9-7.4 kg-m/cm^2) compared with the im-

Card 1/2 UDC: 669.15-194:621.785.74

L 9643-66

ACC NR: AP5027704

pact strength of the nonhardened stee (1-1.7 kg-m/cm^2) at temperatures as low as -40°C. In both cases the threshold of cold brittleness is the same, -25 to -30°C. Thermal hardening enhances the fatigue limit from 6 to 32% and reduces susceptibility to stress concentration. This technique of heat treatment was experimentally tested not only in furnaces but also in rolling mills on employing a special installation for utilizing the heat of rolling in order to increase the mechanical properties of the plate. In addition, the effect of accelerated water cooling was also investigated for the steels 14KhGS, SKhL-4, 09G2, 4S, SK, M16S, 3M, 20K (plate thickness 10-24 mm). Findings: thermal hardening during rolling increases tensile and yield strength by an average of 2-4 kg per mm^2 and impact strength, by 0.5-1.5 kg-m/cm^2, while at the same time reducing relative elongation by ~2%, i. e. the increase in mechanical properties is considerable. As the thickness of the steel plate increases, the effect produced by water cooling decreases, and in the presence of 20-mm thickness this effect no longer is active. Orig. art. has: 1 figure.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2

L 13051-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) JD 24

SOURCE CODE: UR/0133/65/000/011/1036/1039

AUTHOR: Kazarnovskiy, D. S. (Doctor of technical sciences), Dryagil', Ye. P. (Engi-

[illegible] A. Ye. (Engineer) Ba[illegible] (Engineer)

[illegible] Institute of Metals (Tsentral'nyy n.-i. institut metallov)

TITLE: Strengthening of low carbon semikilled St. 3ps steel by heat treatment

SOURCE: Stal', no. 11, 1965, 1036-1039

TOPIC TAGS: carbon steel, low carbon steel, heat treating furnace

ABSTRACT: A heat treatment was developed for St. 3ps steel plates of 12 and 25 mm thickness by heating in a furnace to the temperature range 890-920° and water cooling [illegible] an average strengthening of 20% and a [illegible] 0.036-0.042%, Ps--0.012-0.034% and Cu--0.050-0.058%. The details of the process were [illegible] The steel plates were heated in a roller type furnace to temperature for a holding time of [illegible] min per [illegible] cooling was done in a [illegible] press with a water [illegible]

UDC: 621.78

Card 1/2

L 13052-66
ACC NR: AP5027912

rate of 1700 m³/hr. After quenching, some warpage could be noted, particularly in [illegible] mechanical properties of the heat treated plate in flat and [illegible] specimens were determined. Yield strength, ultimate strength, [illegible] were calculated for heat I (12 mm thick), heat [illegible] and average [illegible] was smaller than [illegible] were tested in the as-rolled, the mechanical properties [illegible] treated condition, yield stress [illegible] -40°C)--3 kgm/cm². It was recommended that low carbon steel plate, strength [illegible] the above treatment, be used in place of low alloyed steel. To be effective the optimum carbon content for heat treatment should be 0.12-0.18%. Orig. art has 3 figures, 2 tables.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 000

Card 2/2

ZAKHAROV, Arkadiy Petrovich; POLOZKOVA, V.V., ved. red.; VORONOVA, V.T., tekhn. red.

[Efforts made in the U.S.A. to prevent the sticking of boring tools] Bor'ba s prikhvatami buril'nogo instrumenta v SShA. Moskva, Izd-vo "Nedra," 1964. 86 p. (MIRA 17:3)

ZAKHAROV, B., kapitan 3-go ranga

Submariners keep their word given to the Party. Komm. Vooruzh. Sil 46 no.23:42-45 D '65. (MIRA 18:12)

ZAKHAROV, B.; KONSTANTINOV, Yu.

For a deeper interpretation of problems connected with the administration of an enterprise. Sots. trud 8 no.7:156-159 Jl '63. (MIRA 16:10)

ZAKHAROV, B.

The timber carrier "Ladogales." Mor. flot. 25 no. 12:33-34 D '65. (MIRA 18:12)

1. Starshiy inzhener otdela obshchego proyektirovaniya TSentral'nogo proyektno-konstruktorskogo byuro No. 1 Ministerstva morskogo flota.

ZAKHAROV, B., kapitan-leytenant

Sentries of naval frontiers. Komm. Vooruzh. Sil 4 no. 13: 73-74 Jl '64. (MIRA 17:7)

ZAKHAROV, B.; KONSTANTINOV, Yu.

Shortcomings in the coverage of labor questions by periodicals concerned with individual branches of industry. Sots.trud 4 no.8:155-158 Ag '59. (MIRA 13:1)
(Russia--Industries--Periodicals)

ZAKHAROV, B.; KONSTANTINOV, Yu.

Supply workers with a basic knowledge of economics. Sots. trud 5 no.11:154-158 N '60. (MIRA 14:1)
(Economics—Study and teaching)

ZAKHAROV, B.; KONSTANTINOV, Yu.

"Work organization in a shop section" by A.G.Losev. Reviewed by B.Zakharov, IU.Konstantinov. Sots. trud. 7 no11:152-156 N '62. (MIRA 15:12)

(Labor and laboring classes)
(Losev, A.G.)

L 21671-66
ACC NR: AP6003551 SOURCE CODE: UR/0109/66/011/001/0021/0024

AUTHOR: Bobrova, L. N.; Zakharov, B. A.; Mendelev, B. A.; Yudanov, B. V.

19
B

ORG: none

TITLE: Analyzing the operation of a logarithmic pulse accumulator

SOURCE: Radiotekhnika i elektronika, v. 11, no. 1, 1966, 21-24

TOPIC TAGS: pulse accumulation, logarithmic pulse accumulation

ABSTRACT: Fundamental formulas for designing logarithmic pulse accumulators [illegible] are developed. It is proven [illegible]

3 figures and 14 formulas.

SUB CODE: 18, 09 / SUBM DATE: 15Sep64 / ORIG REF: 001 / OTH REF: 002

2

Card 1/1 UDC: 621.317.795.3:539.1

A.E.S.

Refractories

Influence of chemical activation of refractories on the combustion of hydrogen. M. B. Slavich and B. A. Zakharov. *Compt. Rend. Acad. Sci. U. R. S. S.*, 26, 68-70 (1940) (in English); *Chem. Abs.*, 34, 6424 (1940).—Reaction rates were studied with stoichiometric mixtures of H and O in packed and unpacked quartz tubes at 400, 700, 850, 900, and 950° and an initial pressure of approximately 1 m.m. Hg. The rate of reaction is increased at low temperatures by the presence of commercial grog with surface coatings of Ni and Fe oxides and by Ural dunite. The activated grog and dunite yielded rates at 400° comparable to the rate obtained with the unactivated refractory at 950°. High-temperature annealing had little effect on the activities of these two refractories.

ZAKHAROV, B. A.

Energetics Inst. im. G. M. Krzhizhanovskiy, Dept. Tech. Sci., Acad. Sci. (Mbr., Catalytic Combustion Lab., -1949-; Mor., 1949-).

"Influence of Chemical Activation of Refractories upon the Combustion of Fire-Damp," Dok. AN 26, No. 1, 1940;

"Catalytic Effect of Exydes of Rare Elements on the Combustion of Hydrogen," Ibid., 27, No. 5, 1940;

"Hydraulic Resistance of Columns Packed with Granulated Catalyst," Iz. AN Nauk SSSR, 1946;

"Simultaneous Oxidation of Methane, Carbon Monoxide, and Hydrogen in A Porcelian Tube," Dok. AN, 60, No. 9, 1948;

"Catalytic Oxidation of Methanized City Gas (Mixture of Methane and Hydrogen)," Ibid., 63, No. 3, 1948.

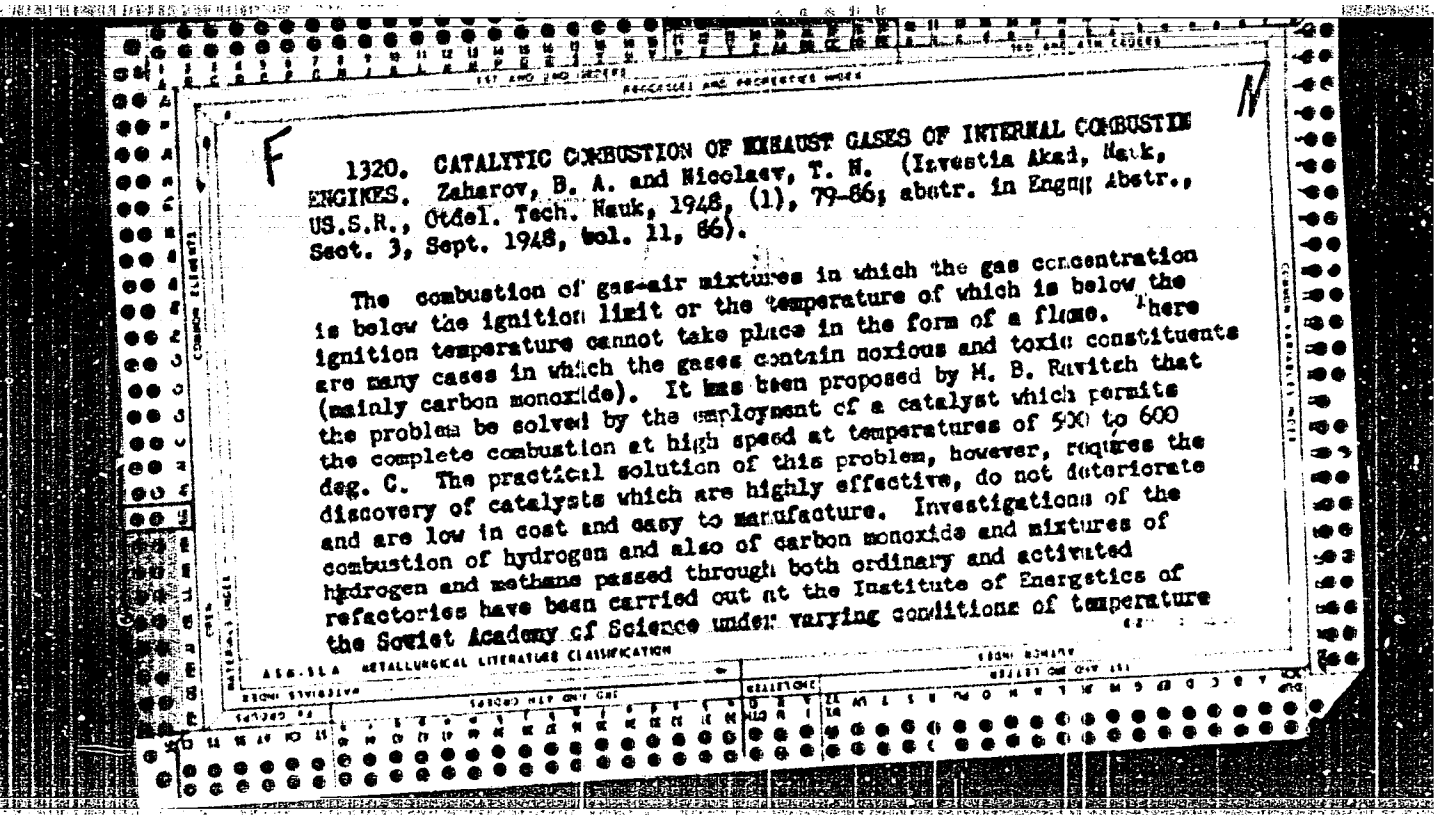
ZAKHAROV, B.A.

Inst. Combustible Minerals, Acad., Sci. USSR, (-1946-)

Lab. Motor Fuels, (-1946-)

"Pressure Drop Through Granular Materials in Packed Tubes."

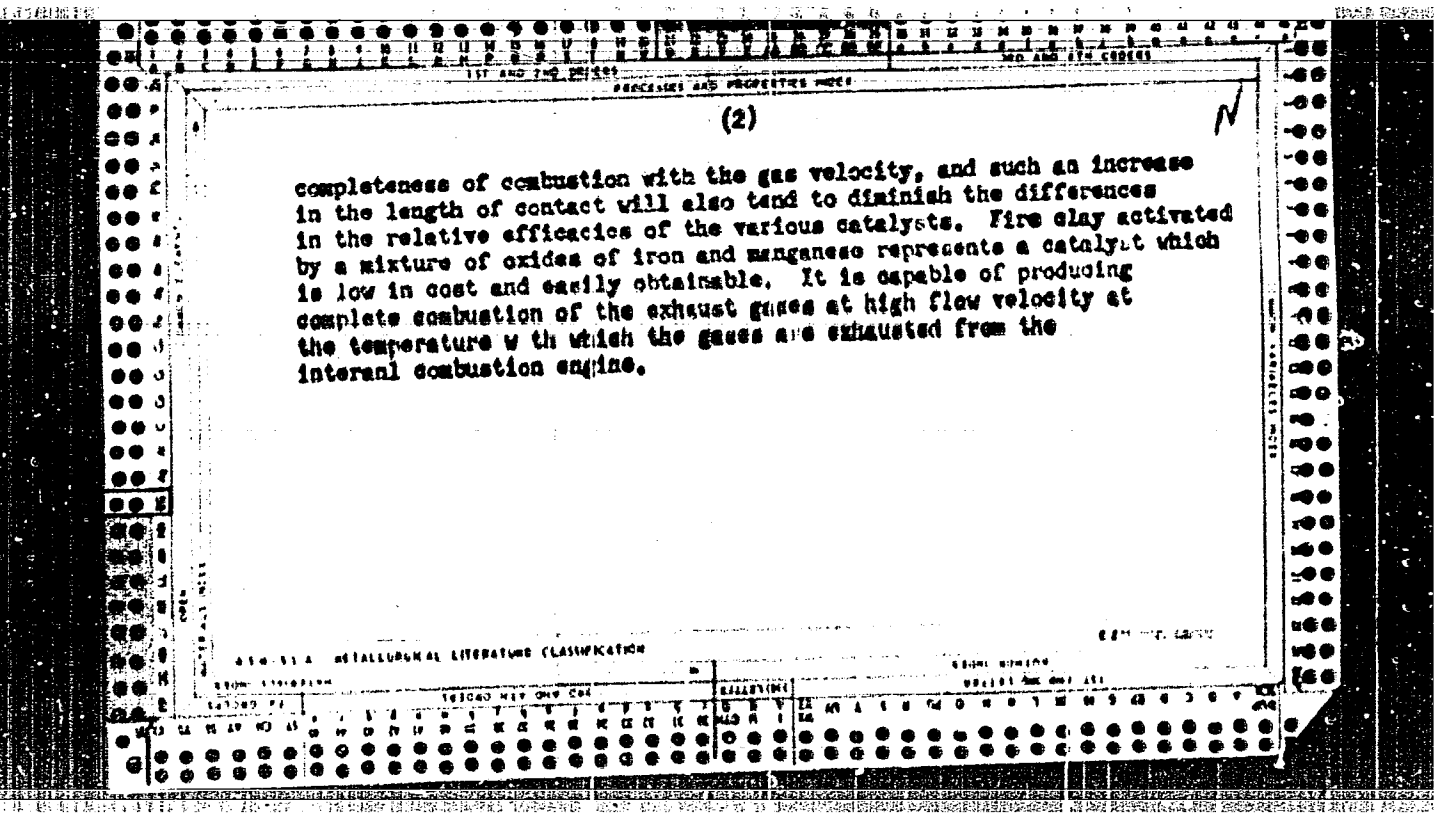
Iz. Ak. Nauk, Otdel Tekh. Nauk, No. 3., 1946.



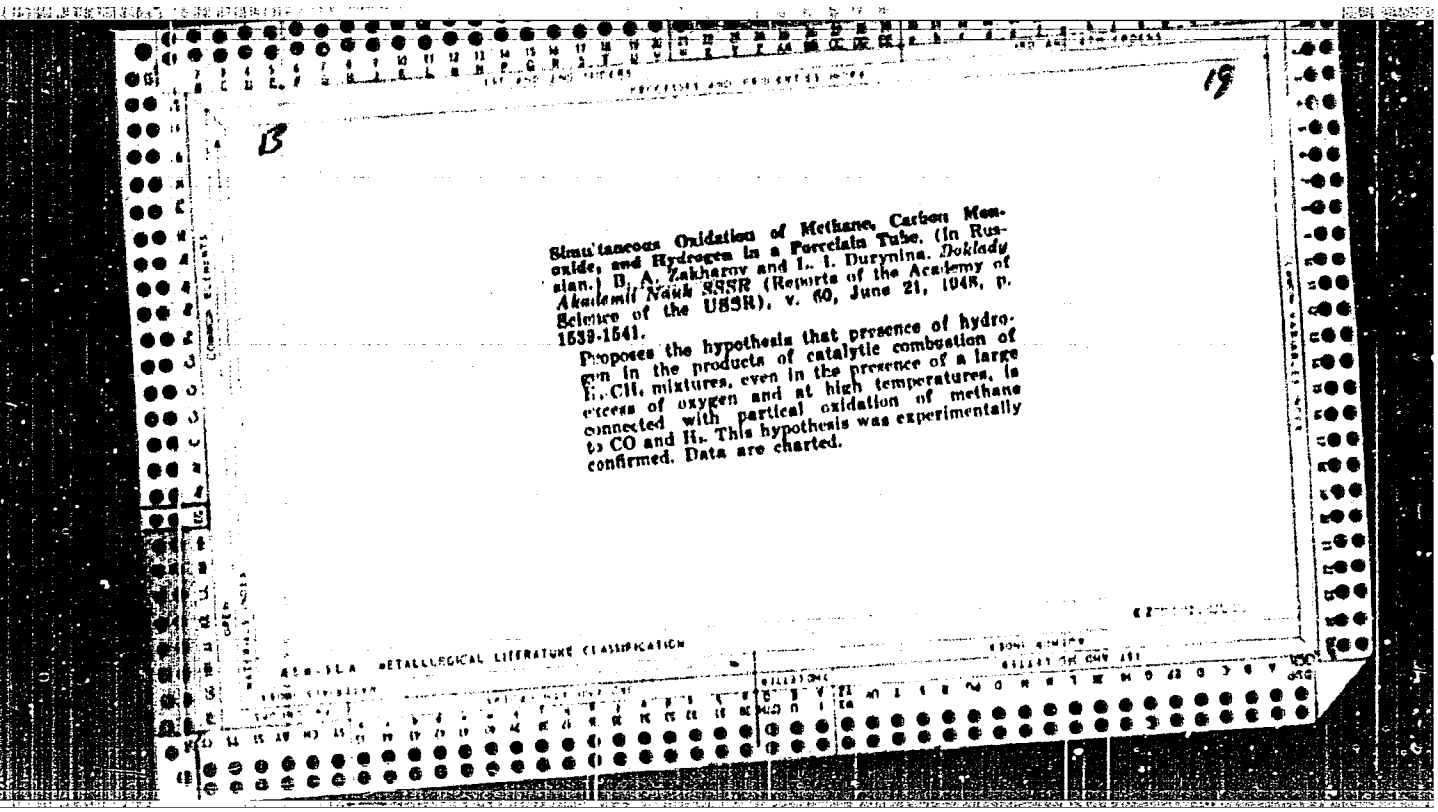
1320. CATALYTIC COMBUSTION OF EXHAUST GASES OF INTERNAL COMBUSTION ENGINES. Zaharov, B. A. and Nicolaev, T. N. (Izvestia Akad. Nauk, U.S.S.R., Otdel. Tech. Nauk, 1948, (1), 79-86; abstr. in Engng Abstr., Sect. 3, Sept. 1948, Vol. 11, 66).

The combustion of gas-air mixtures in which the gas concentration is below the ignition limit or the temperature of which is below the ignition temperature cannot take place in the form of a flame. There are many cases in which the gases contain noxious and toxic constituents (mainly carbon monoxide). It has been proposed by M. B. Ravitch that the problem be solved by the employment of a catalyst which permits the complete combustion at high speed at temperatures of 500 to 600 deg. C. The practical solution of this problem, however, requires the discovery of catalysts which are highly effective, do not deteriorate and are low in cost and easy to manufacture. Investigations of the combustion of hydrogen and also of carbon monoxide and mixtures of hydrogen and methane passed through both ordinary and activated refractories have been carried out at the Institute of Energetics of the Soviet Academy of Science under varying conditions of temperature

and pressure; they have shown that activated refractories are well suited to serve as catalysts for the combustion of gases. Particular interest is attached to experiments conducted with fire clay activated by a mixture of oxides of iron and manganese as suggested by B. A. Zaharov. These experiments were conducted with the exhaust gases of a petrol engine. In the tests referred to in the present article a mixture of exhaust gas with air was passed through a refractory layer at atmospheric pressure and at temperatures of 300 to 500 deg. C. respectively. The velocity of flow ranged from 0.15 to 6 metres per second and the contact speed varied from 1,000 to 20,000 litres of gas mixture per litre of refractory per hour. The efficacy of the refractory as a catalyst was assessed on the basis of the degree of completeness of combustion of the exhaust gas. Detailed data on the experimental apparatus used is also included in the article. The following conclusions were arrived at by the investigators. By activating an ordinary fire clay refractory with oxides of various metals (palladium or mixtures of copper-manganese, iron-manganese) the combustion of exhaust gases from internal combustion engines is assisted. In the case of laminar flow of the exhaust gas through the refractory with a short length of contact complete combustion of the exhaust gas is obtained at moderate temperatures. In the case of unstable, turbulent flow the efficacy of the various catalysts diminishes in the following order: copper-manganese, palladium, iron-manganese, the last showing the greatest decline. An increase in the length of travel through the refractory layer will compensate for the drop in the degree of



completeness of combustion with the gas velocity, and such an increase in the length of contact will also tend to diminish the differences in the relative efficacies of the various catalysts. Fire clay activated by a mixture of oxides of iron and manganese represents a catalyst which is low in cost and easily obtainable. It is capable of producing complete combustion of the exhaust gases at high flow velocity at the temperature w th which the gases are exhausted from the interanl combustion engine.



B

19

Simultaneous Oxidation of Methane, Carbon Monoxide, and Hydrogen in a Porcelain Tube. (In Russian.) D. A. Zakharov and L. I. Durynina. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Science of the USSR), v. 60, June 21, 1948, p. 1539-1541.

Proposes the hypothesis that presence of hydrogen in the products of catalytic combustion of C_nH_m mixtures, even in the presence of a large excess of oxygen and at high temperatures, is connected with partical oxidation of methane to CO and H_2. This hypothesis was experimentally confirmed. Data are charted.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZAKHAROV, B. A.

USSR/Chemistry - Methane
Chemistry - Catalysis

Nov 48

"Catalytic Oxidation of Methanized City Gas (Mixture of Methane and Hydrogen)," B. A. Zakharov, I. I. Durynina, Power Engr Inst imeni Krzhizhanovskiy, Acad Sci USSR, 3 3/4 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 3

Previously, as a carrier for catalysts at high temperatures, does not cause much oxidation. Active contacts ($Fe_2O_3 + MnO_2$; K_2O, Pd, $CuO + MnO_2$) are good catalysts. Catalytic action of active contacts accomplete oxidation is equivalent to a 250 - 300° difference in temperature. A CuO-MnO_2 catalyzer is more active than older

55/49719

USSR/Chemistry - Methane (Contd) Nov 48

Effects in oxidizing methane in presence of hydrogen. Submitted by Acad S. S. Namatkin 30 Jul 48.

55/49719

ZAKHAROV, B.A.; YUDANOV, B.V.

High-efficiency cynamic modulator. Prib. i tekh.eksp. 10 no.5:212-213 S-O '65. (MIRA 19:1)

1. Submitted Sept.12, 1964.

BOBROVA, L.N.; ZAKHAPOV, B.A.; MENDELEV, B.A.; YUDANOV, B.V.

Analysis of the operation of a logarithmic pulse steering device. Radiotekh. i elektron. 11 no. 1:21-24 Ja '66. (MIRA 19:1)

1. Submitted September 14, 1964.

ZAKHAROV, B.A.; YUDANOV, B.V.

Use of dynamic capacitors in the modulation of weak electric signals. Prib. i tekh. eksp. 9 no.1:127-131 Ja-F '64.
(MIRA 17:4)

ZAKHAROV, B.A.; IVANOV, V.I.; MAL'TSEVA, A.L.; KRYLOVA, G.A.

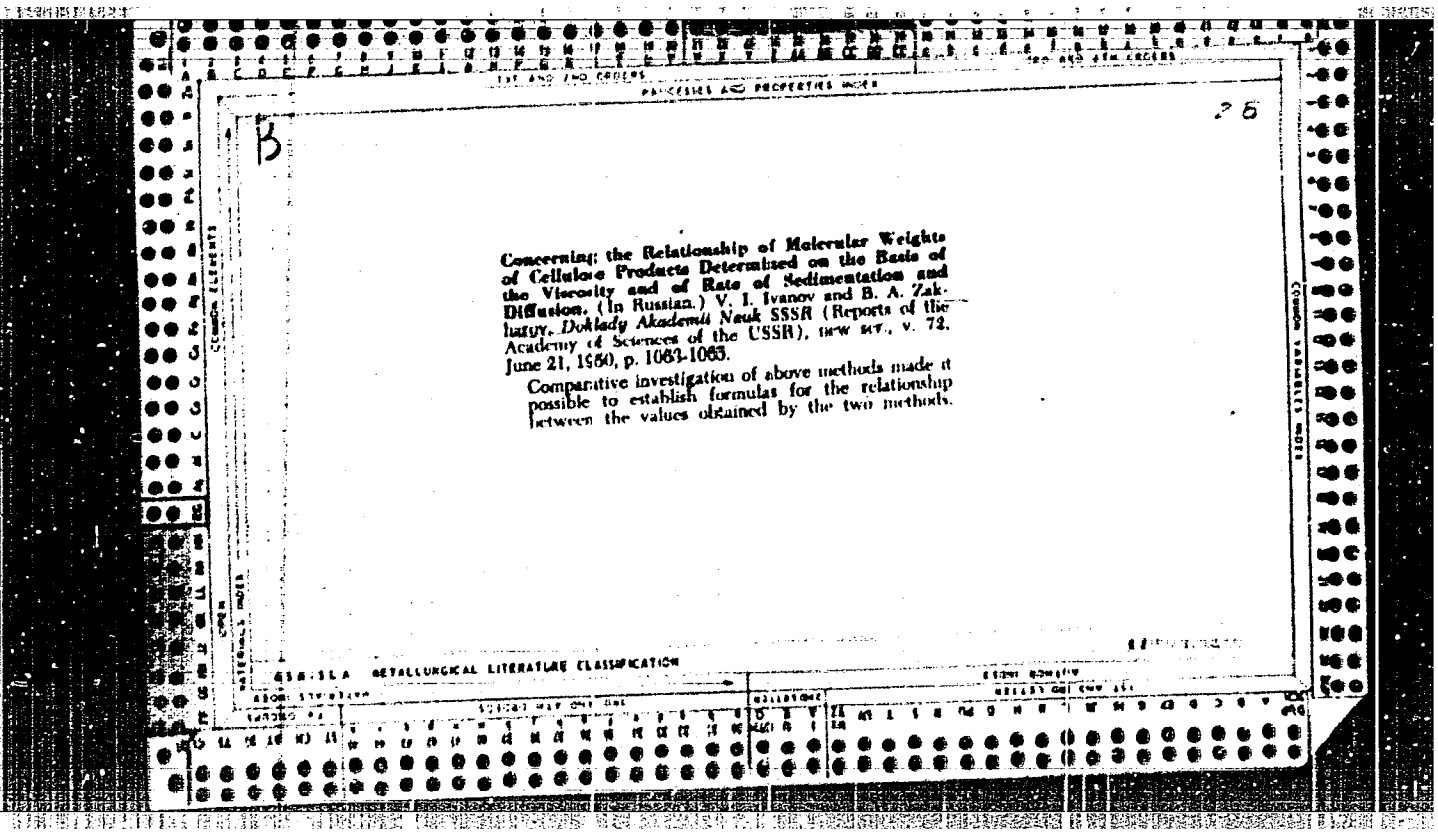
Controlling the specificity of cellulose homogeneity by means of temperature in the course of treatment with dilute nitric acid. Izv. AN SSSR.Otd.khim.nauk no.5:926-927 My '61. (MIRA 14:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Cellulose)

ZAKHAROV, B.A. (Moskva); POTEKHIN, A.M. (Moskva); YUDANOV, B.V. (Moskva)

Effectiveness of negative feedback in a logarithmic current amplifier. Avtom. i telem. 26 no.9:1649-1650 S '65.

(MIRA 18:10)



Concerning the Relationship of Molecular Weights of Cellulose Products Determined on the Basis of the Viscosity and of Rate of Sedimentation and Diffusion. (In Russian.) V. I. Ivanov and B. A. Zakharov. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 72, June 21, 1950, p. 1063-1065.

Comparative investigation of above methods made it possible to establish formulas for the relationship between the values obtained by the two methods.

ZAKHAROV, B. A.

USSR/Chemistry - Action of Em Field 21 Nov 51
on Cellulose

"Decomposition Kinetics of Solid Cotton Cellulose in a High-Frequency Electromagnetic Field," B. A. Zakharov, Inst of Org Chem, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXXI, No 3, pp 417-419

Nonuniform heating of cotton cellulose results in a carbon layer which inhibits further heating and decreases the yield of decompn products. Kinetic studies were made of the uniform heating of cotton cellulose using hf current. The results are graphically illustrated. Up to 200°, the amt of decompn does not exceed 10%; from 200 to 300°, decompn jumps to 78%; beyond 300°, the decompn rate diminishes, reaching 85% at 600°. At 300° the decompn rate is a little over 0.5 g/min.

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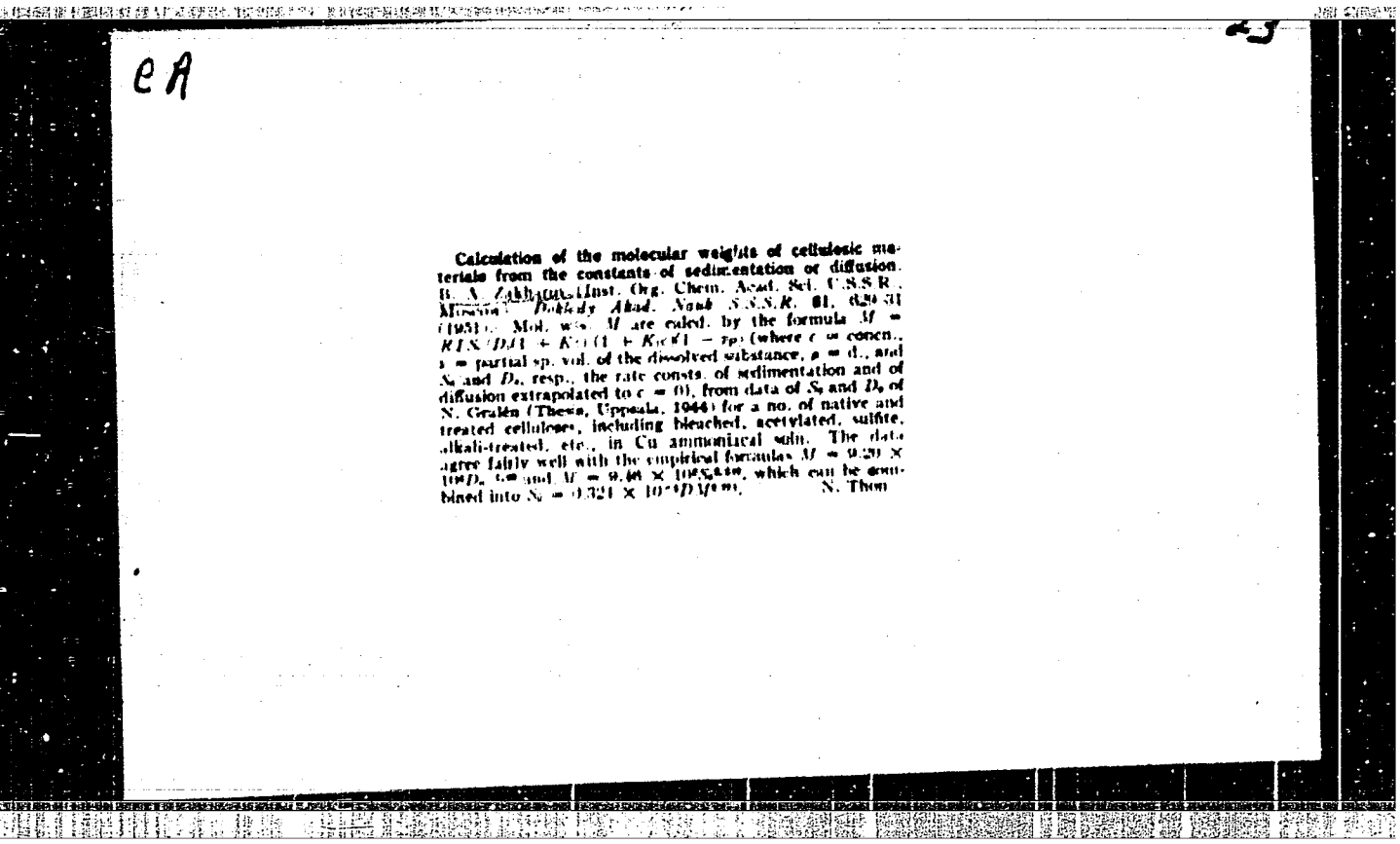


eA

Calculation of the molecular weights of cellulosic materials from the constants of sedimentation or diffusion. B. A. Zakh[illegible] Inst. Org. Chem. Acad. Sci. U.S.S.R., Moscow. *Doklady Akad. Nauk S.S.S.R.* 81, 629-31 (1951). Mol. wts. M are calcd. by the formula $M = RTS/D(1 + K_1c)(1 + K_2c)(1 - v\rho)$ (where c = concn., v = partial sp. vol. of the dissolved substance, ρ = d., and S_0 and D_0, resp., the rate consts. of sedimentation and of diffusion extrapolated to $c = 0$), from data of S_0 and D_0 of N. Gralén (Thesis, Uppsala, 1944) for a no. of native and treated celluloses, including bleached, acetylated, sulfite, alkali-treated, etc., in Cu ammoniacal soln. The data agree fairly well with the empirical formulas $M = 9.59 \times 10^3 D_0^{-1.89}$ and $M = 9.46 \times 10^3 S_0^{2.00}$, which can be combined into $S_0 = 0.321 \times 10^{-4} D_0 M^{0.53}$. N. Thon

IVANOV, V.I. (Moskva); ZAKHAROV, B.A. (Moskva).

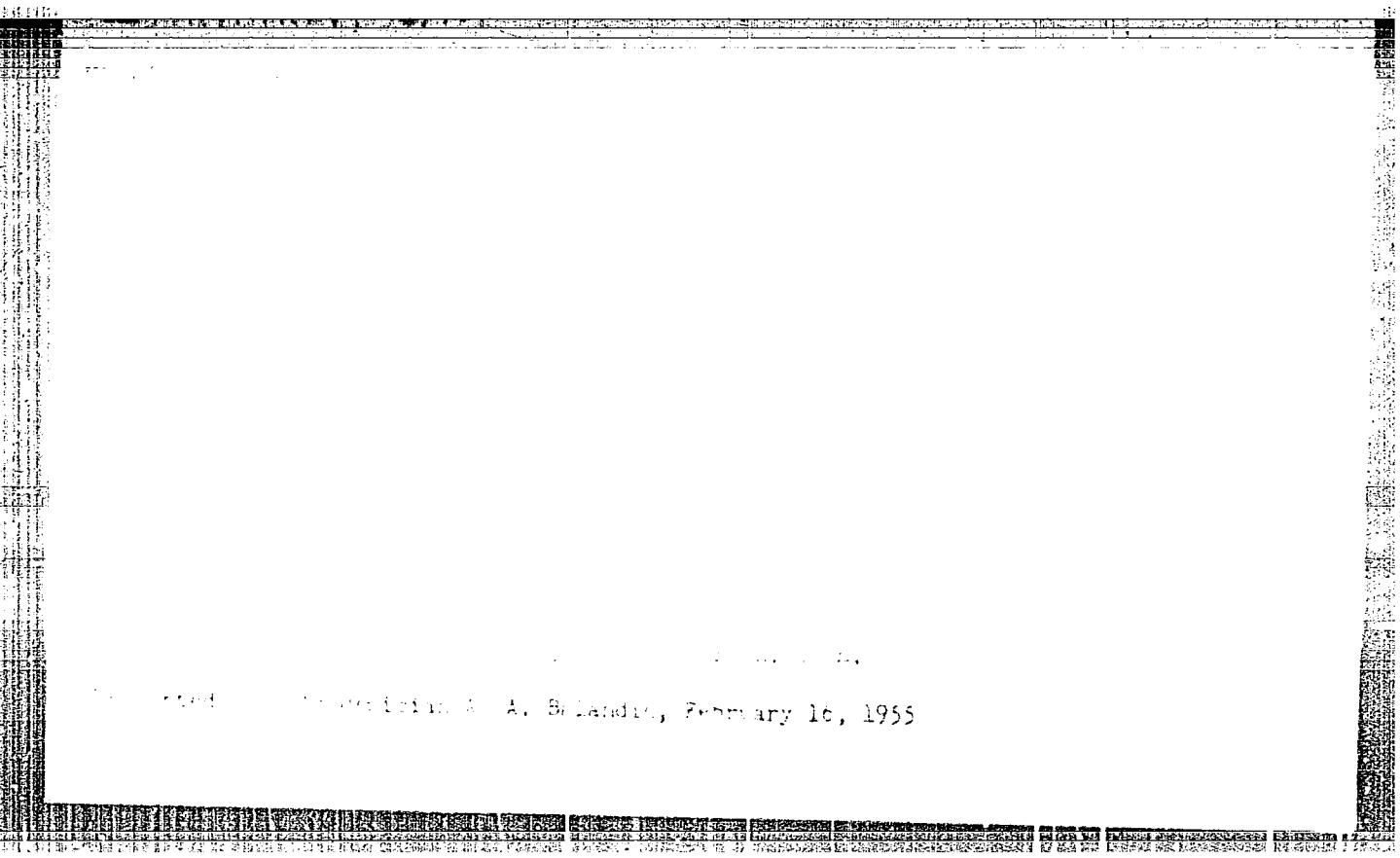
Development and progress of the osmometric method for determination of the molecular weights of high molecular weight compounds. Usp.khim. 22 no.6: 686-711 Je '53. (MLRA 6:5)

(High molecular weight compounds)

IVANOV, V.I., doktor tekhnicheskikh nauk; ZAKHAROV, B.A., kandidat tekhnicheskikh nauk.

Functions of molecular weight distribution in cellulose and its derivatives. Bum.prom. 29 no.2:5-10 Mr '54. (MLRA 7:5)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Cellulose) (Molecular weight)



A. B[illegible], February 16, 1955

ZAKHAROV, B.A.

Category: USSR

B-9

Abs Jour: Zh--Kh, No 3, 1957, 7582

Author : Rubinshteyn, A. M., Kulikov, S. G., and Zakharov, B. A.
Inst :
Title : Relative Activity of the Oxides, Sulfides, and Selenides of Ni, Zn, and Cr in the Catalytic Decomposition of Isopropyl Alcohol

Orig Pub: Izv. AN SSSR, Section on Chemical Sciences, 1956, No 5, 587-595

Abstract: The specific surface σ and phase composition of NiO, NiS, NiSe, ZnO, ZnS, ZnSe, Cr_2O_3, CrSe, NiO-ZnO, NiS-ZnS, and NiSe-ZnSe catalysts was determined before and after their utilisation in the decomposition of absolute isopropyl alcohol. The reaction was carried out in a flow system, using 10 ml of catalyst (grain size 1.5 x 5.0 mm) and an $i\text{-}C_3H_7OH$ space velocity of 0.6 ± 0.02 hrs^{-1}

Card : 1/2

IVANOV, V.I.; ZAKHAROV, B.A.

Basic properties of cellulose necessary for obtaining strong and extra strong fibers. Bum. prom. 33 no.9:4-7 S '58. (MIRA 11:10)

1. Institut organicheskoy khimii AN SSSR.
(Cellulose) (Textile fibers, Synthetic)

5(3)

AUTHORS: Zakharov, I. A., Ivanov, V. I., Krylova, G. A., V'yunova, N. G. SOV/20-122-5-10/56

TITLE: Molecular Homogeneity and Properties of Cellulose (Molekulyarnaya gomogennost' i svoystva tsellyulozy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5, pp 814 - 816 (USSR)

ABSTRACT: For some time the opinion was prevalent that the molecular weight of cellulose as a highly molecular compound (Refs 1-4) amounted to about 500 000 (Ref 5). However, viscosimetric measurements and the retardation of oxydative degradation yielded a figure of about 1, 600 000 for this weight (Refs 6-8). Recently this was confirmed (Refs 9-11). As early as 1939, strange and hardly explicable observations were made (Refs 12-13): the properties of strength of the natural cellulose fibres became obvious in a solid state at an average molecular weight ($\overline{M}$) of about 32 000 and increase rapidly with an increase of $\overline{M}$ up to 113 000; then the increase of strength is

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constantly reduced up to 160 000 above which it remains constant. Furthermore it was discovered that cellulose is heterogeneous with respect to the length of chain molecules (Refs 14, 15). Therefore that above figure of molecular weight must be considered as an average value depending undoubtedly on the method of measuring. A general idea of the heterogeneity of cellulose is offered by the average coefficient of heterogeneity

$$\overline{U} = \frac{\overline{M}_{weight}}{\overline{M}_{num}} - 1$$, in which $\overline{M}_{weight}$ and $\overline{M}_{num}$ are the molecular weights: average by weight and numerical average, respectively. In modern studies the heterogeneity of cellulose is described more completely and more accurately by means of functions of integral and differential calculus (Ref 16). At present some tests are conducted in order to estimate the changes in heterogeneity in different processes of solution and production and to combine the heterogeneity

with the quality of the cellulose products. This, however, was rather complicated and afforded little hope of success. The authors wanted to tackle the task of specifying the problem of chain molecule length. The more precise concept and meaning of homogeneity of cellulose served them well in this work. According to their opinion, two characteristics of homogereity, which can be determined on the curve of mass distribution, are of decisive importance; a) the degree of homogeneity (mono-dispersion), which expresses the physical nature of the phenomenon. This characteristic is defined by the height and basis of the maximum on the curve. b) the other characteristic is determined by the degree of polymerization(P), which corresponds to the maximum. As a consequence, the super-molecular structure of cellulose (opposite position of molecules and inter-molecular bonds) can and must be determined by the degree of molecular homogeneity. The authors proved this in experiments. Nitric ethers produced from cellulose in finished

products were fractioned according to the method of precipitation (Ref 10). Examples are given and explained by means of curves (Fig 1, curves 1-4). There are 1 figure and 19 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D. Zelinskiy of the Academy of Sciences USSR)

PRESENTED: June 3, 1958, by P.A.Rebinder, Academician

SUBMITTED: May 25, 1958

5(3)

AUTHORS: Ivanov, V. I., Zakharov, B. A., Krylova, G. A., V'yunova, N. G. SOV/20-123-4-32/53

TITLE: A Chemical Method of Homogenizing Cellulose With Respect to Molecular Weight (Khimicheskiy metod gomogenizatsii tsellyulozy po molekulyarnomu vesu)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 4, pp 691 - 692 (USSR)

ABSTRACT: In an earlier report by the authors (Ref 1) their theoretical ideas that the strength of the cellulose products is closely connected with the homogeneity of the cellulose with respect to the length of the chain molecules, was proved. From the data in publications it may be concluded that during the individual production stages (Refs 3-6) no considerable homogeneity of cellulose is obtained. The authors have investigated the absorption of acids by cellulose from aqueous solution. Cotton cellulose was used for these experiments as well as chemical (sulfate) wood pulp. It was treated with HNO_3 (concentration 0.2 n at 92°) (cotton cellulose for 1 hour,

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chemical wood pulp for half an hour). Furthermore the cotton cellulose was treated under the same conditions with HCl. Figures 1 and 2 show the results obtained: the cotton cellulose (Fig 1, Curves 1 and 2) is to a large extent heterogeneous with respect to its molecular weight. The treatment of cotton cellulose led to a degradation of long chain molecules with a definite homogenization (Curve 4), whereas the effect of nitric acid was accompanied by a considerable homogenization (Curve 3). The treatment of the sulfate chemical wood pulp according to the method of the institute (IOKh AS USSR) mentioned under Association leads to a physical-chemical homogenization of the cellulose. The maximum on the mass distribution curve is at P= 850 (Fig 2, Curve 2). HNO_3 causes the displacement of this maximum into the low-molecular range, i.e. P= 220. The results obtained make it possible to draw the conclusion that HNO_3 may be used for the homogenization mentioned in the title. The high degree of homogenization can be reached at a desired degree of polymerization by the selection of the conditions of the combined physico-chemical homogenization (concentration, temperature, duration). Thus,

A Chemical Method of Homogenizing Cellulose With Respect to Molecular Weight SOV/20-123-4-32/53

an appropriate strength of various cellulose products can be obtained. There are 2 figures and 11 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy Academy of Sciences, USSR)

PRESENTED: July 11, 1958, by V. A. Kargin, Academician

SUBMITTED: June 20, 1958

Card 3/3

ZAKHAROV, B.A.; IVANOV, V.I.; KRYLOVA, G.A.

Homogeneity of cellulose according to its molecular weight and its importance in manufacturing strong fibers. Khim.volok. no.3: 32-35 '59. (MIRA 12:11)

1. Institut organicheskoy khimii AN SSSR.
(Cellulose) (Textile fibers, Synthetic)

SOV/62-59-5-38/40

5(3)

AUTHORS: Ivanov, V. I., Zakharov, B. A., Trukhtenkova, N. Ye., Krylova, G. A.

TITLE: Letters to the Editor (Pis'ma redaktoru)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 5, p 949 (USSR)

ABSTRACT: In earlier papers (Refs 1-3) the authors had shown that the strength of a hydrated cellulose fiber may be determined mainly from the homogeneity of the molecular weight of the cellulose. Accordingly, the molecular homogeneity of bleached sulfite paper with known strength characteristics was investigated after a single deformation (double folding). Papers of the type A, and papers made by the firms Aane and Serlakius were investigated. The mass distribution function in dependence on the degree of polymerization is represented by a figure for the various types of paper. Investigations showed that, in order to attain a high degree of strength, a very homogeneous cellulose in the range of polymerization above 2000 is necessary. This may be attained by using a cellulose for paper production,

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which was obtained by means of the chloride of potash method, or by homogenizing the cellulose by means of nitrohydrochloric acid. There are 1 figure and 3 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: February 2, 1959

Card 2/2

5(1,3) SOV/20-127-2-45/70

AUTHORS: Zakharov, B. A., Ivanov, V. I., Krylova, G. A.

TITLE: The Homogenization of Cellulose With Respect to Molecular Weight in the Process of Bleaching by Activated Oxidation

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 2, pp 396 - 397 (USSR)

ABSTRACT: The results obtained by the authors and the data given in the publications show that the usual chemical methods of cellulose working to hydrate cellulose fibers are not able to guarantee the production of highly solid structural-homogeneous fibers. Although the processes used change, as a rule, the heterogeneity of the molecular weight, they do not cause a considerable homogeneity of cellulose. Therefore it became a topical object to estimate the mentioned processes from the point of view of the change in homogeneity and to change these processes in the necessary direction. The treatment of cotton- as well as of wood cellulose with diluted nitric acid causes a far-reaching homogeneity (Ref 3). In contrast to this, a modification

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of the usual factors alone is not successful (Ref 4). From figure 1 follows that the usual bleaching of the sulphite cellulose of wood only reduces the homogeneity (Ref 5). In this connection it was interesting to modify the oxidation process upon which the bleaching with sodium hypochlorite is based. Therefore the authors investigated the topic mentioned in the title. Urea served as activator. The cellulose preparations of G. A. Krylova (Ref 6) were investigated. The figure 2:3 shows the distribution of the molecular weight of the sulphate cellulose which served, partly bleached and refined with alkali, as initial cellulose. The figure 2:1 shows that no homogenization proceeds if sodium hypochlorite influences this cellulose. A considerable specific homogenization is, in contrast to this, obtained, if the activated oxidation is used (preliminary treatment of the cellulose with urea) and the cellulose treated with hypochlorite oxidized after that. The above homogenization is bound to be connected with the increased accessibility of the long chain molecules for the oxidizing agent if the duration of the activated oxidation amounts to only 1/10 of the usual one, and the content of carbonyl- and carboxyl groups in the bleached

celluloses is on the whole equal (Ref 6). The specific degradation proceeding here increases the quantity of the molecules with the polymerization degree 800. It may therefore be expected that the use of catalysts or activators will establish conditions which guarantee a specific degradation and increase of the homogeneity of cellulose with respect to its molecular weight in several chemical working processes of cellulose materials and in their working to hydrate cellulose fibers. There are 2 figures and 6 references, 5 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: March 21, 1959, by P. A. Rebinder, Academician

SUBMITTED: March 9, 1959

LUBENETS, V.D., kand.tekhn.nauk, dots.; FROLOV, Ye.S., kand.tekhn.nauk; VASIL'YEV, V.I., inzh.; VLASOV, V.M., inzh.; ZAKHAROV, B.D., inzh.

Investigating the performance of the VN-120 vacuum-pump. Izv. vys. ucheb.zav.; mashinostr. no.4:166-171 '59. (MIRA 13:4)

1.Moskovskoye vysshoye tekhnicheskoye uchilishche im. Baumana.
(Vacuum pumps)

ZAKHAROV, B.F.

Stevens-Johnson syndrome in a 9-year-old boy. Pediatriia 42 no.6:75-76 Je'63 (MIRA 17:1)

1. Iz Rostovskogo nauchno-issledovatel'skogo instituta akusherstva i padiatrii (dir. - kand. med. nauk F.S.Baranovskaya, nauchnyy rukovoditel' - prof. T.V. Loverdo).

L 26741-66 EWT(m)/T/EWP(t) IJP(c) JD/JG

ACC NR: AP6011466 SOURCE CODE: UR/0070/66/011/002/0227/0235

AUTHOR: Zakharov, B. G.

ORG: none

TITLE: Influence of the degree of perfection of Ge and GaAs on the jump of the integral intensity at the K absorption edge

SOURCE: Kristallografiya, v. 11, no. 2, 1966, 227-235

TOPIC TAGS: germanium, gallium arsenide, crystal imperfection, epitaxial growing, single crystal, absorption edge, x radiation, radiation intensity, crystal dislocation phenomenon

ABSTRACT: The author investigated the perfection of Ge and GaAs by recording the intensity discontinuity in the region of the K absorption edge, with an aim of as- [illegible] investigations of the perfection of singl[illegible] ap- [illegible] lination method. The observed jump [illegible] good agreement with the theoretical values calculated on the basis of the dynami[illegible] theory developed by W. H. Zachariasen (Theory of X-ray Diffraction in Crystals, John Wiley, New York, 1945). The jump in intensity was independent of the dislocation

UDC: 548.73

Card 1/2

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ACC NR: AP6011466

density. It is indicated on the basis of the result that the thickness of mosaic epitaxial films can be determined by an x-ray method based on a procedure suggested in an earlier paper by the author (Kristallografiya v. 10, No. 3, 447, 1965) and discussed in greater detail in the present article. The sensitivity of the method and some of its limitations are discussed. Orig. art. has: 5 figures, 7 formulas, and 2 tables.

SUB CODE: 20/ SUBM DATE: 21Oct64/ ORIG REF: 004/ OTH REF: 011

Card 2/2

ZAKHAROV, B.I.

Manifestation of timely and premature deterioration of the sacroiliac joint. Trudy LIETIN no.16:404-412 '64.

Accessory sacroiliac joints and manifestations of their premature deterioration. Ibid.:413-420 '64. (MIRA 19:1)

1. Pervyy Leningradskiy meditsinskiy institut imeni akademika I.P. Pavlova.

GOLOGANOV, E.K.; ZAKHAROV, B.N. [deceased]

Determining the parameters of the adjustment of industrial regulators by means of the simple graphic analysis method. (MIRA 17:9)
Khim. prom. no.2:129-130 F '64.

SOBOLEV, V.M.; PROKOF'YEV, Ya.N.; FEL'DBLYUM, V.Sh.; ZAKHAROV, N.N. [deceased]; MKHEIDZE, M.A.

Low-temperature viscosimetric tests in the development of the technology for the synthesis of butyl rubber. Kauch. i rez. 23 no.6:1-4 Je '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut monomerov dlya sinteticheskogo kauchuka.

ZAKHAROV, D. N.: Cand ~~Master~~ Tech Sci (diss) -- "Investigation of the operation of the moldboards of ditch-digging machines in cutting a temporary irrigation network (On the theory of cutting soil)". Moscow, 1959. 11 pp (Min Transport-Machine Building USSR, All-Union Sci Res Inst of Transport-Machine Building), 150 copies (KL, No 13, 1959, 105)

ZAKHAROV, B.N., inzh.

Lumber carrier "Maloyaroslavets." Sudostroenie 30 no.5:1-6 My '64. (MIRA 17:6)

ZAKHAROV, B.N.

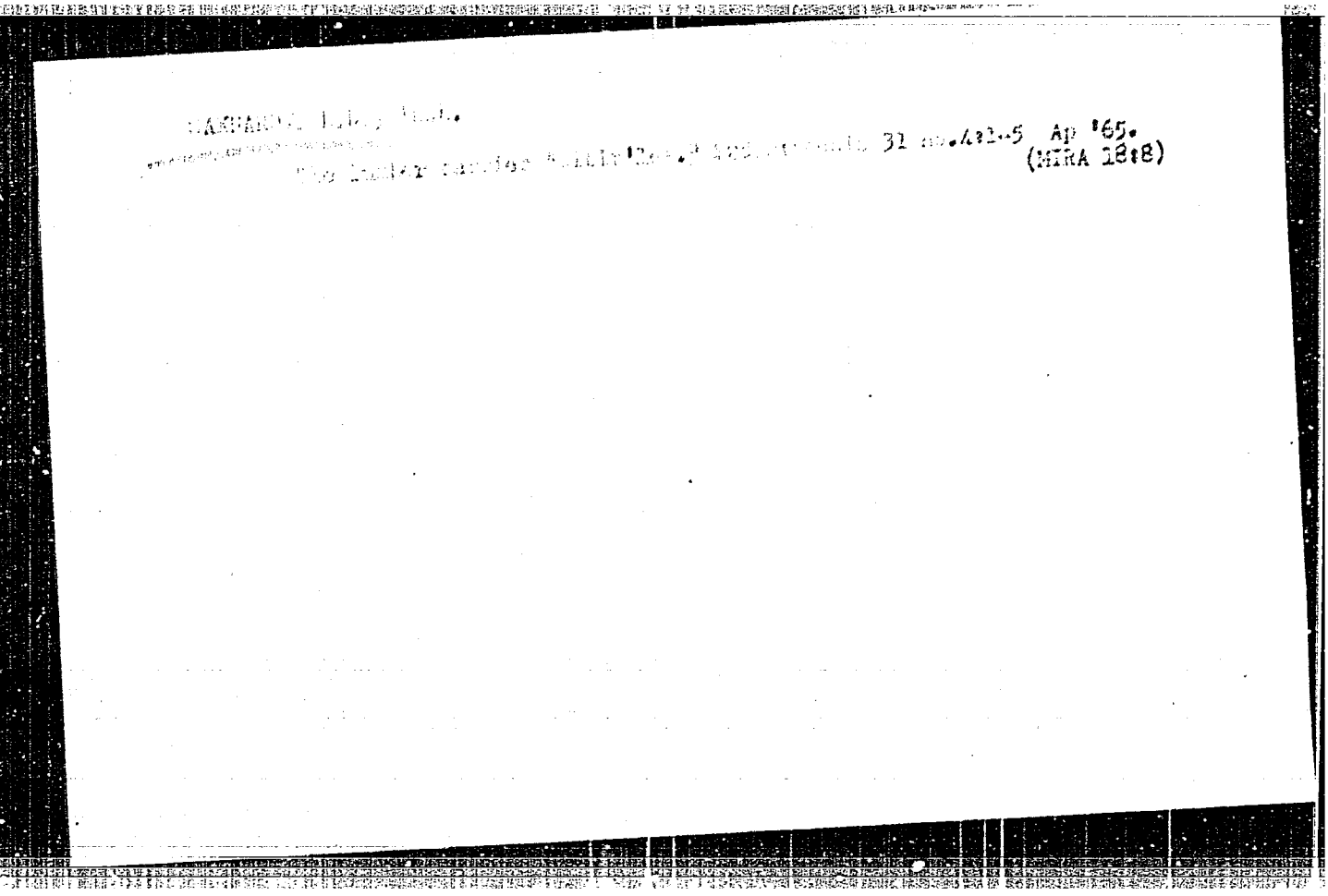
Suspension of stack furnace operations for an extended time without blowing out. TSvet. met. 35 no.4:83-84 Ap '62. (MIRA 15:4)

(Metallurgical furnaces)

ZAKHAROV, B.N.

Selecting a sulfidizer for the shaft furnace smelting of oxidized nickel ores. Tsvet. met. 36 no.4:41-44 Ap '63.
(MIRA 16:4)

(Nickel—Metallurgy)



(MIRA 18:8)

ZAKHAROV, B.N., kapitan-leytenant

Interchangeability is needed for combat. Mor. sbor. 48 no.1:51-53 Ja '65. (MIRA 18:4)

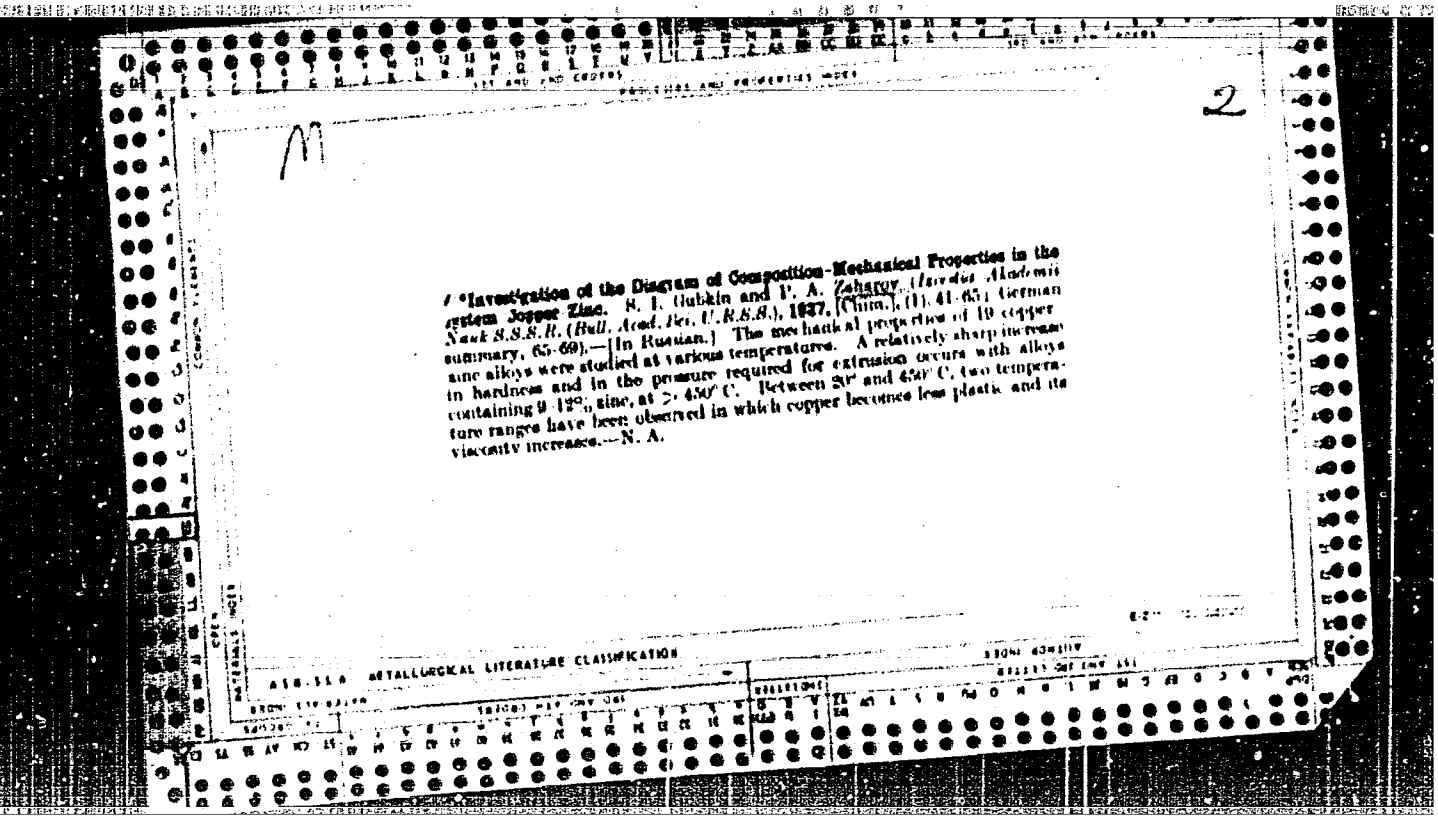
ANIKIN, Nikolay Aleksandrovich; DROZHYSHEVSKAYA, Nadezhda Ivanovna; DUDINOV, Vladimir Alekseyevich; KON'KOV, Arkadiy Sergeyevich; KONYUKHOV, Sergey Mikhaylovich; MESHCHERINOV, Fedor Ivanovich; POLETSKIY, Aleksandr Timofeyevich; POLYAKOV, Gleb Maksimovich; SAL'NIKOV, Oleg Alekseyevich; CHERNOBAY, Dmitriy Gavrilovich; GAVRILOV, P.G., kand. tekhn.nauk, retsenzent; NEFED'YEV, G.N., kand. fiz.-mat. nauk; SOKOLOV, V.M., kand. fiz.-mat. nauk; SOKOLOVSKIY, V.I., kand. tekhn. nauk; RUDIN, S.N., inzh.; EYDINOV, M.S., kand. tekhn. nauk; DUBITSKIY, G.M., doktor tekhn. nauk, red.; ZAKHAROV, B.P., inzh., red.; KONOVALOV, V.N., kand. tekhn. nauk, red.; PERETS, V.B., kand. tekhn. nauk, red.; ROZENBERG, I.A., kand. ekonom. nauk, red.; STEPANOV, V.V., kand. tekhn. nauk, red.; SUSTAVOV, M.I., inzh., red.; SHABASHOV, S.P., kand. tekhn. nauk, red.; DUGINA, N.A., tekhn. red.

[Handbook for inventors and innovators]Spravochnik dlia izobretatelia i ratsionalizatora . [By] N.A.Anikin i dr. Izd.3., ispr. i dop. Moskva, Mashgiz, 1962. 791 p. (MIRA 16:1)
(Technological innovations—Mechanical engineering)

PROCESSES AND PROPERTIES INDEX

Production of castings from quality cast iron. Preliminary report. E. S. Khannalis and B. P. Zakharov. *Nauchskaya Vsesoyuznogo Inst. Metal.* 7, 76-81(1941). Methods are described for the prepn. of cast iron with better phys. and mech. properties than the usual gray cast iron. The C content of an iron melted in a cupola furnace rarely sinks below 2.8%, and when it does, it is more or less accidental. A cast iron with a min. C content possesses some undesirable properties, among others, a considerable decrease in the casting quality. The authors suggest increasing the temp. of casting. At a temp. of 1250°, samples were obtained which showed a tensile strength of 15-16 kg per sq mm, whereas samples cast at 1280° showed a tensile strength of only 30-31 kg. per sq. mm. H. Cohen

METALLURGICAL LITERATURE CLASSIFICATION



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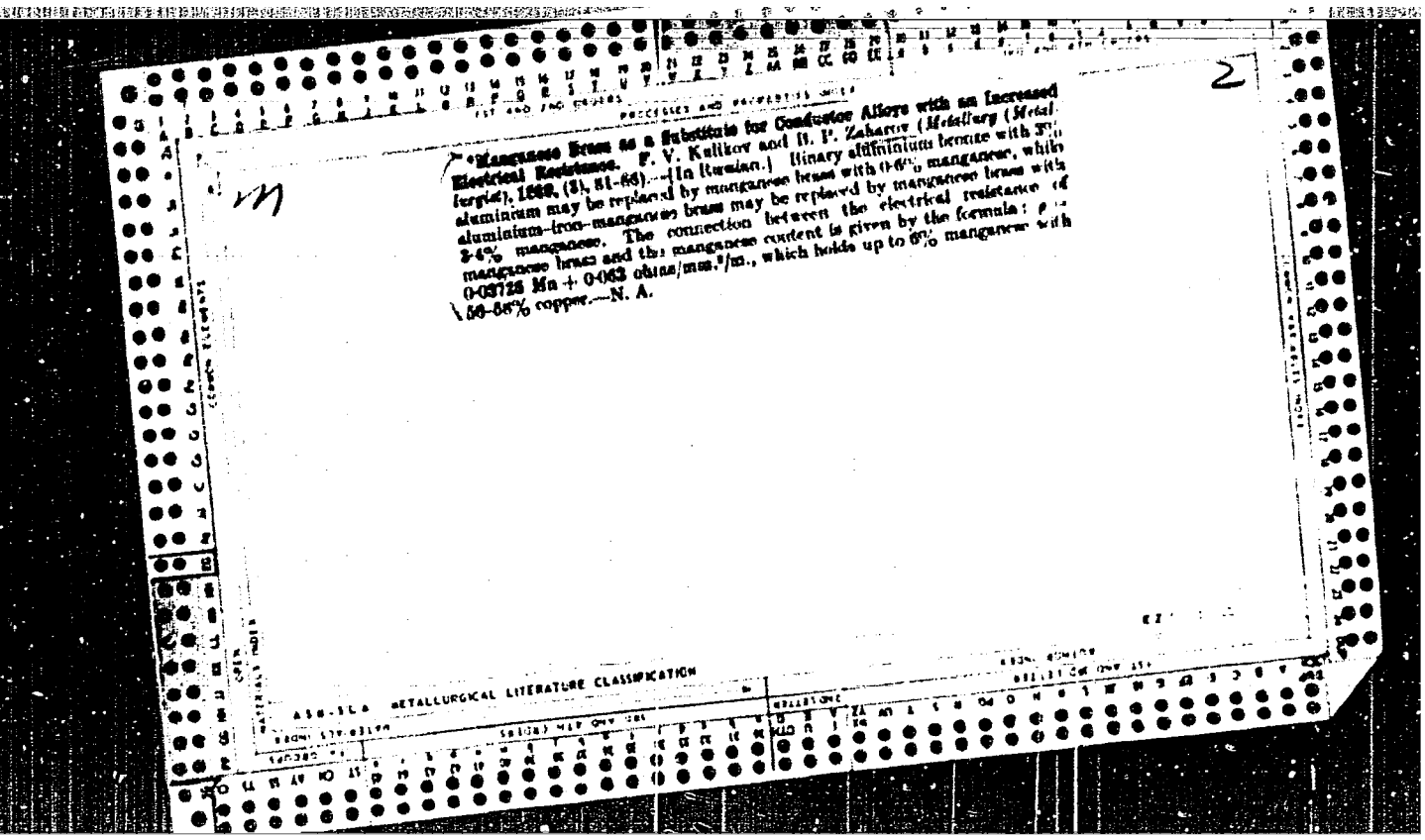
* **Investigation of the Diagram of Composition–Mechanical Properties in the system Copper Zinc.** S. I. Gubkin and P. A. Zaharov. (*Izvestia Akademii Nauk S.S.S.R. (Bull. Acad. Sci. U.R.S.S.)*, 1937, (Chim.), (1), 41-65.) German summary, 65-69.—[In Russian.] The mechanical properties of 10 copper zinc alloys were studied at various temperatures. A relatively sharp increase in hardness and in the pressure required for extrusion occurs with alloys containing 9-12% zinc, at 2- 450° C. Between 20° and 450° C, two temperature ranges have been observed in which copper becomes less plastic and its viscosity increases.—N. A.

A58-11A METALLURGICAL LITERATURE CLASSIFICATION

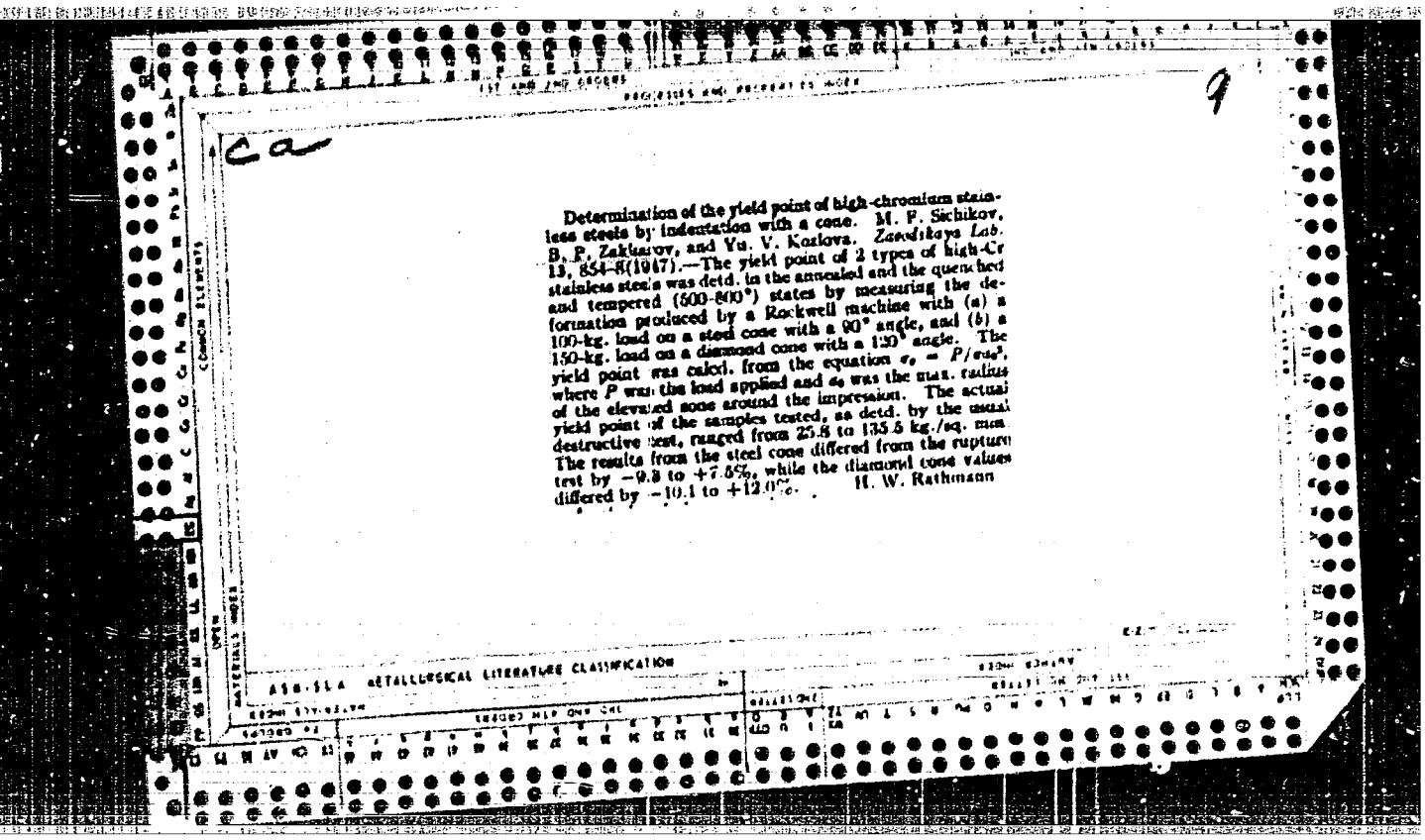


Manganese Brass as a Substitute for Constantan Alloys with an Increased Electrical Resistance. F. V. Kulikov and B. P. Zaharov (*Metallurg (Metallurg)*, 1939, (3), 51-66).—[In Russian.] Binary aluminium brass with 3% aluminium may be replaced by manganese brass with 0-6% manganese, while aluminium-iron-manganese brass may be replaced by manganese brass with 3-4% manganese. The connection between the electrical resistance of manganese brass and the manganese content is given by the formula: $\rho = 0{\cdot}03725\ Mn + 0{\cdot}043$ ohms/mm.^{2}/m., which holds up to 6% manganese with 56-66% copper.—N. A.

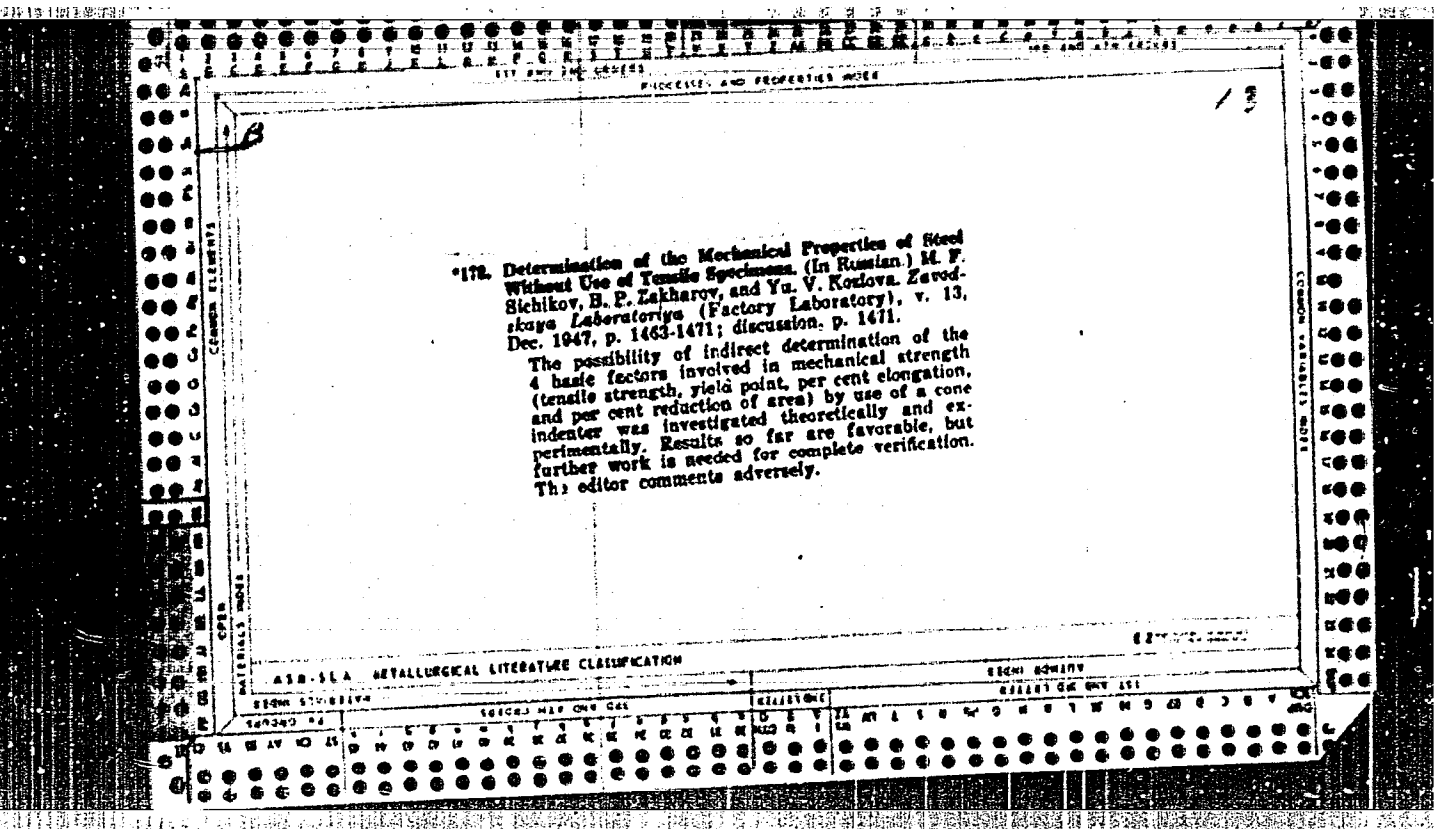
ZAKHAROV, B. P.

The heat treater; textbook for trade schools. Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1946. 191 p. (50-33917)

TN731.Z3



Determination of the yield point of high-chromium stainless steels by indentation with a cone. M. P. Sichikov, B. P. Zakharov, and Yu. V. Kozlova. *Zavodskaya Lab.* 13, 854–8(1947).—The yield point of 2 types of high-Cr stainless steels was detd. in the annealed and the quenched and tempered (600–800°) states by measuring the deformation produced by a Rockwell machine with (*a*) a 100-kg. load on a steel cone with a 90° angle, and (*b*) a 150-kg. load on a diamond cone with a 120° angle. The yield point was calcd. from the equation $\sigma_0 = P/\pi d_0^2$, where P was the load applied and d_0 was the max. radius of the elevated zone around the impression. The actual yield point of the samples tested, as detd. by the usual destructive test, ranged from 25.6 to 135.5 kg./sq. mm. The results from the steel cone differed from the rupture test by −9.8 to +7.5%, while the diamond cone values differed by −10.1 to +12.0%. H. W. Rathmann



*178. Determination of the Mechanical Properties of Steel Without Use of Tensile Specimens. (In Russian.) M. F. Sichikov, B. P. Zakharov, and Yu. V. Kozlova. Zavodskaya Laboratoriya (Factory Laboratory), v. 13, Dec. 1947, p. 1463-1471; discussion, p. 1471.

The possibility of indirect determination of the 4 basic factors involved in mechanical strength (tensile strength, yield point, per cent elongation, and per cent reduction of area) by use of a cone indenter was investigated theoretically and experimentally. Results so far are favorable, but further work is needed for complete verification. The editor comments adversely.

ZAKHAROV, B.P., inzh.; YURKOV, V.N., kand.tekhn.nauk; BELYASHOV, V.N., inzh.

Using a bunker train in tunneling. Shakht. stroi. 7 no.4:23-25 Ap '63. (MIRA 16:3)

1. Glubochanskoye shakhtostroyupravleniye (for Zakharov). 2. Altayskiy torno-metallurgicheskiy nauchno-issledovatel'skiy institut (for Yurkov, Belyashov).

BELAZOVSKIY, M.Ya.; KNYAZYUK, L.V., inzh., retsenzent; ZAKHAROV, B.P., inzh., red.

[Nondestructive testing methods] Nerazrushaiushchie metody kontrolia. Moskva, Izd-vo "Mashinostroenie," 1964. 41 p. (MIRA 17:7)

ZAKHAROV, B. P.

Kuruklis, G. L., jt. au. How to increase the durability of metal cutting tools. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1952. 37 p. (Nauchno-populiarnaia biblioteka rabochego stanochnika, vyp. 8) (53-37938)

TJ1160.N33 vol. 8)

ZAKHAROV, B.P.; DUGINA, N.A., tekhnicheskiy redaktor.

[Electric metal-machining processes] Elektricheskie sposoby obrabotki metallov. 2-e izd. Pod red. V.M.Gorelova. Moskva, Gos. nauchno-tekhn. izd-vo Mashinostroit. i sudostroit. lit-ry, 1954. 48 p. (Nauchno-populiarnaia biblioteka rabochego stanochnika, no.10) [Microfilm](MLRA 7:11)
(Electric spark) (Metal cutting)

Zakharov, B.P.

SOKOLOV, K.N., kandidat tekhnicheskikh nauk; ZAKHAROV, B.P., inzhener, redaktor; DUGINA, N.A., tekhnicheskiy redaktor

[Plant equipment for the heat treatment of steel; auxiliary equipment and cold working processes] Oborudovanie termicheskikh tsekhov; vspomogatel'noe oborudovanie i protsessy okhlazhdeniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1952. 271 p. [Microfilm] (MLRA 7:10)
(Steel--Heat treatment)

POPOV, S.V.; ZAKHAROV, B.P., inzhener, retsenzent.

[For economy in every productive operation] Za ekonomiiu na kazhdoi proizvodstvennoi operatsii. Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashinostroit.i sudostroit. lit-ry [Uralo-Sibirskoe otd-nie] 1953. 30 p. (MLRA 7:3)

1. Starshiy master sborochnogo uchastka tsekha seriynoy elektricheskoy apparatury zavoda Uralelektroapparat(for Popov). (TSepushtanov, A.A.) (Efficiency,Industrial)

ZAKHAROV, B. P.

The universal heat-treatment furnace operator; textbook for trade schools

TN731.Z3 1954

1. Steel - Heat treatment.

Zakharov, B. P.

RAZUMOVA, M.S.; ZAKHAROV, B.P., inzhener, redaktor; DUGINA, M.A., tekhnicheskiy redaktor.

[Materials and mixtures for making molds] Formovochnye materialy i smesi. Pod red. B.P.Zakharova. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1954. 35 p. (Nauchno-populiarnaia biblioteka rabochego-liteishchika, no.3) (MLRA 8:11)
(Molding(Founding))